

CHAPTER 4

POINT AND NONPOINT SOURCE CHARACTERIZATION OF THE TENNESSEE PORTION OF THE GUNTERSVILLE LAKE WATERSHED

4.1 Background.

4.2. Characterization of HUC-12 Subwatersheds

- 4.2.A. 060300010101 (Tennessee River)**
- 4.2.B. 060300010103 (Dry Creek)**
- 4.2.C. 060300010201 (Battle Creek, Upper)**
- 4.2.D. 060300010202 (Big Fiery Gizzard Creek)**
- 4.2.E. 060300010203 (Battle Creek, Lower)**
- 4.2.F. 060300010204 (Sweden Cove)**
- 4.2.G. 060300010501 (Crow Creek, Lower)**
- 4.2.H. 060300010502 (Crow Creek, Upper)**
- 4.2.I. 060300010503 (Little Crow Creek)**
- 4.2.J. 060300010601 (Little Coon Creek)**
- 4.2.K. 060300010602 (Big Coon Creek)**

4.1. BACKGROUND. This chapter is organized by HUC-12 subwatershed, and the description of each subwatershed is divided into four parts:

- i. General description of the subwatershed
- ii. Location of USGS (United States Geological Survey) gaging stations and STORET sites
- iii. Location of permitted activities
- iv. Description of nonpoint source contributions

The HUC can range from 2 to 16 digits long, more digits indicating a smaller and smaller portion of the watershed is represented. The Tennessee portion of the Guntersville Lake Watershed (HUC 06030001) has been delineated into eleven HUC-12 subwatersheds.

Information for this chapter was obtained from databases maintained by the Division of Water Pollution Control or provided in the WCS (Watershed Characterization System) data set. The WCS used was version 2.0 (developed by Tetra Tech, Inc for EPA Region 4) released in 2003.

WCS integrates with ArcView® v3.x and Spatial Analyst® v1.1 to analyze user-delineated (sub)watersheds based on hydrologically connected water bodies. Reports are generated by integrating WCS with Microsoft® Word. Land Use/Land Cover information from 2001 MRLC (Multi-Resolution Land Cover) data are calculated based on the proportion of county-based land use/land cover in user-delineated (sub)watersheds. Nonpoint source data in WCS are based on agricultural census data collected 1992–1998; nonpoint source data were reviewed by Tennessee NRCS staff.

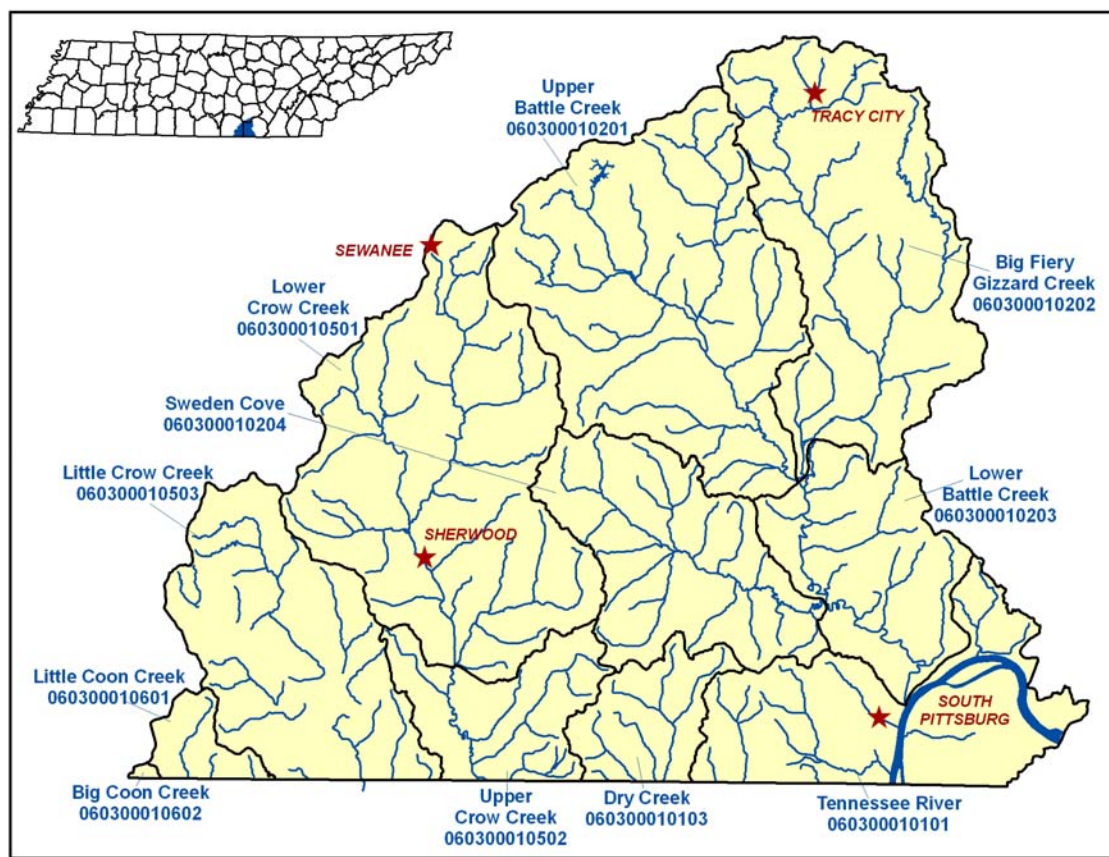


Figure 4-1. The Tennessee Portion of the Guntersville Lake Watershed is Composed of eleven USGS-Delineated Subwatersheds (12-Digit Subwatersheds).

4.2. CHARACTERIZATION OF HUC-12 SUBWATERSHEDS. The Watershed Characterization System (WCS) software and data sets provided by EPA Region IV were used to characterize each subwatershed in the Guntersville Lake Watershed.

HUC-8	HUC-10	HUC-12
06030001	060300101	06030010101 Tennessee River
		06030010103 Dry Creek
	060300102	06030010201 Battle Creek, Upper
		06030010202 Big Fiery Gizzard Creek
		06030010203 Battle Creek, Lower
		06030010204 Sweden Cove
	060300105	06030010501 Crow Creek, Lower
		06030010502 Crow Creek, Upper
		06030010503 Little Crow Creek
	060300106	06030010601 Little Coon Creek
		06030010602 Big Coon Creek

Table 4-1. HUC-12 Drainage Areas are Nested Within HUC-10 Drainages. NRCS worked with USGS to delineate the HUC-10 and HUC-12 drainage boundaries.

4.2.A. 060300010101 (Tennessee River).

4.2.A.i. General Description.

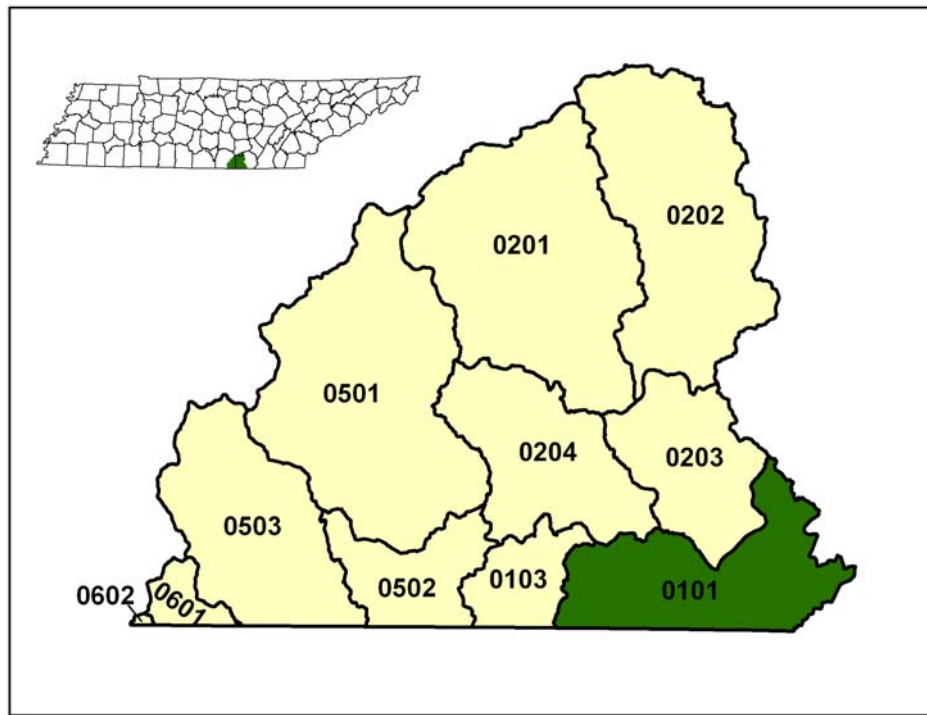


Figure 4-2. Location of Subwatershed 060300010101. All Guntersville Lake HUC-12 subwatershed boundaries in Tennessee are shown for reference.

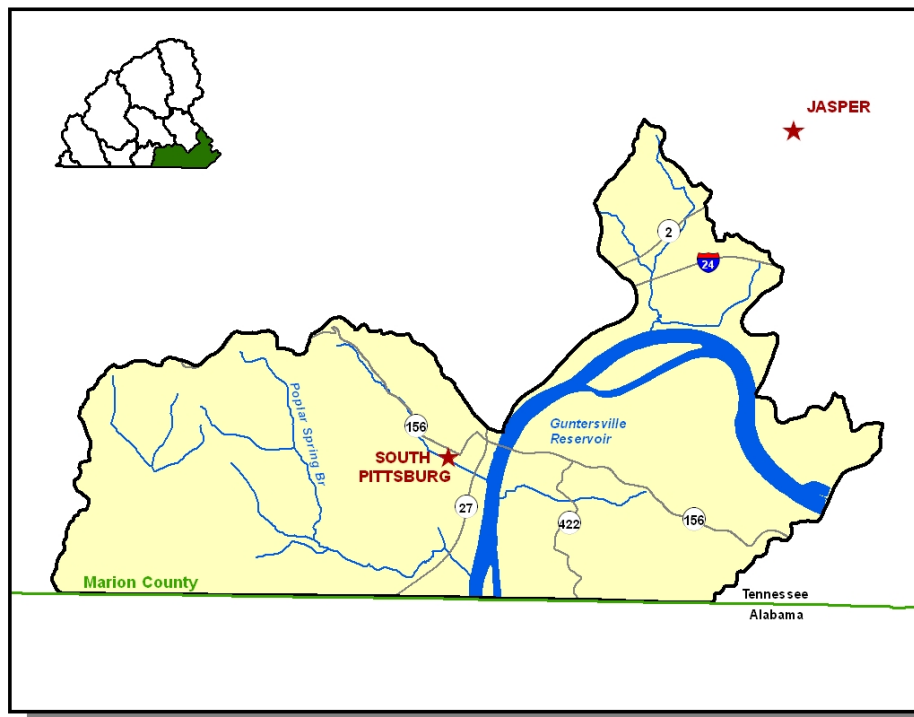


Figure 4-3. Locational Details of Subwatershed 060300010101.

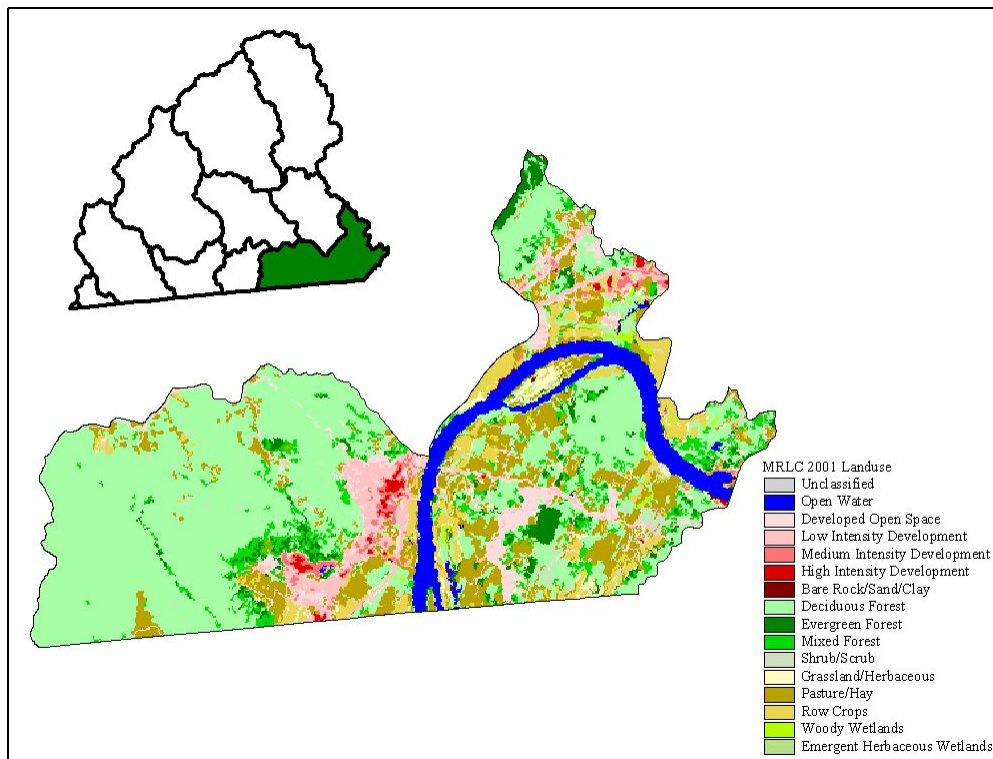


Figure 4-4. Illustration of Land Use Distribution in Subwatershed 060300010101.

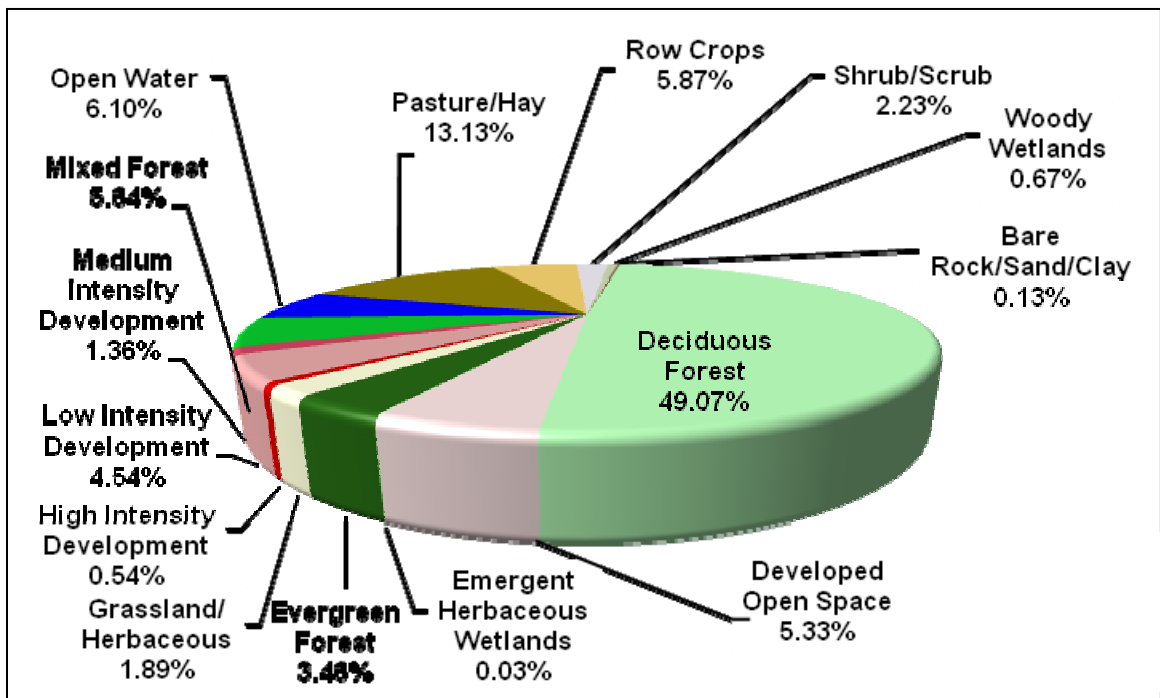


Figure 4-5. Land Use Distribution in Subwatershed 060300010101. More information is provided in Appendix IV.

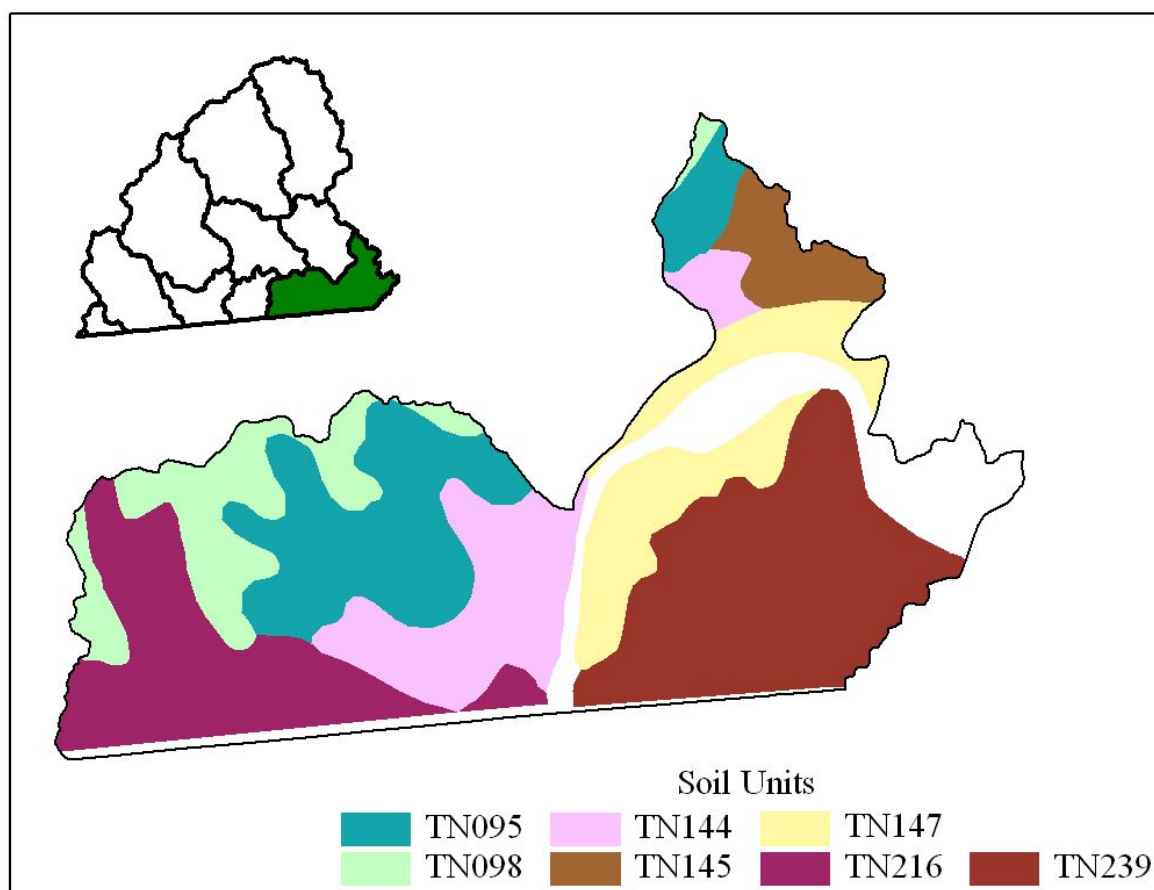


Figure 4-6. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060300010101.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN095	0.00	B	2.35	5.12	Loam	0.31
TN098	1.00	C	3.98	4.82	Loam	0.32
TN144	0.00	B	2.43	5.43	Loam	0.31
TN145	0.00	B	1.84	4.83	Loam	0.27
TN147	41.00	C	1.30	5.95	Silty Loam	0.38
TN216	0.00	C	2.51	4.59	Loam	0.25
TN239	2.00	C	2.94	4.86	Loam	0.22

Table 4-2. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060300010101. The definition of "Hydrologic Group" is provided in Appendix IV.

County	COUNTY POPULATION			% of County in Watershed	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Marion	24,860	26,674	27,776	6.0	1,492	1,601	1,667	11.7

Table 4-3. Population Estimates in Subwatershed 060300010101.

			NUMBER OF HOUSING UNITS			
Populated Place	County	Population	Total	Public Sewer	Septic Tank	Other
Jasper	Marion	2,780	1,199	966	225	8
Kimball	Marion	1,243	507	54	448	5
New Hope	Marion	818	329	2	318	9
Orme	Marion	156	61	6	55	0
South Pittsburg	Marion	3,295	1,444	1,278	153	13
Total		8,292	3,540	2,306	1,199	35

Table 4-4. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 060300010101.

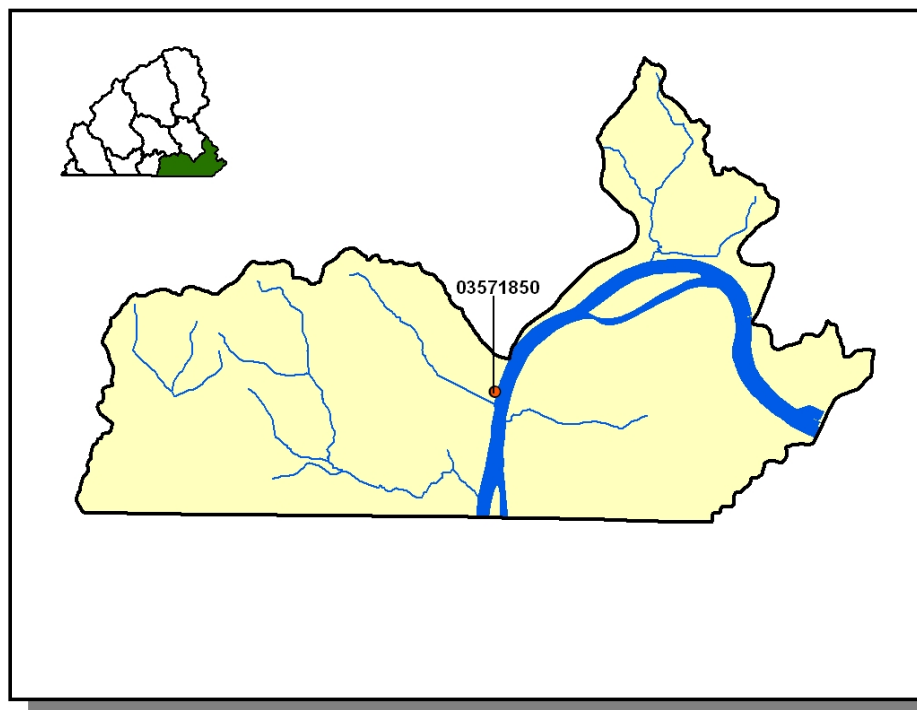
4.2.A.ii. USGS Gaging Stations and STORET Sites.

Figure 4-7. Location of USGS Continuous Record Gaging Stations in Subwatershed 060130010101. More information is provided in Appendix IV.

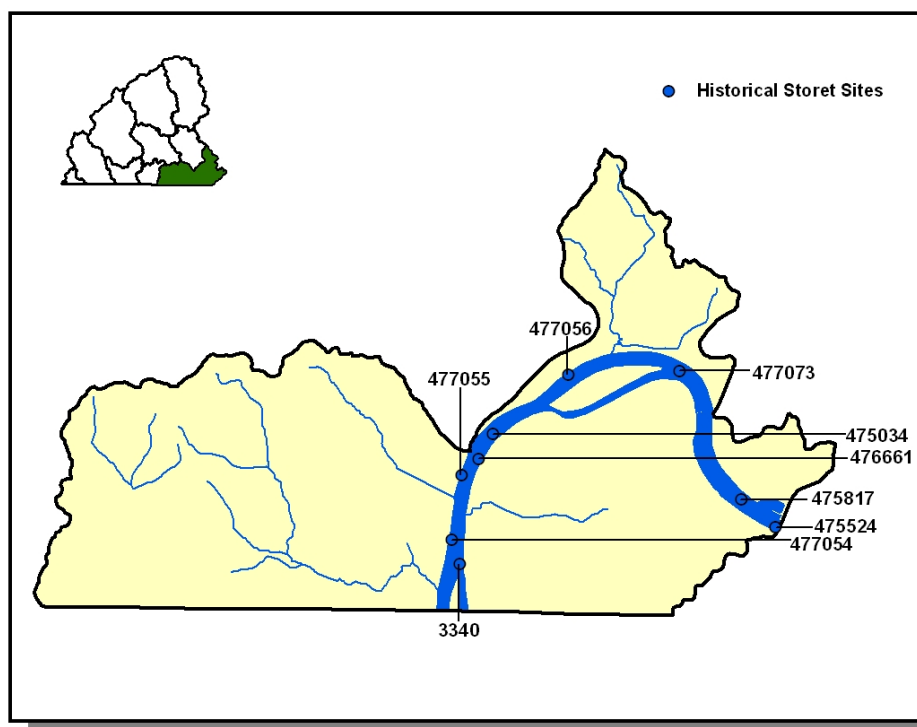


Figure 4-8. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 060300010101. More information, including site names and locations, is provided in Appendix IV.

4.2.A.iii. Permitted Activities.

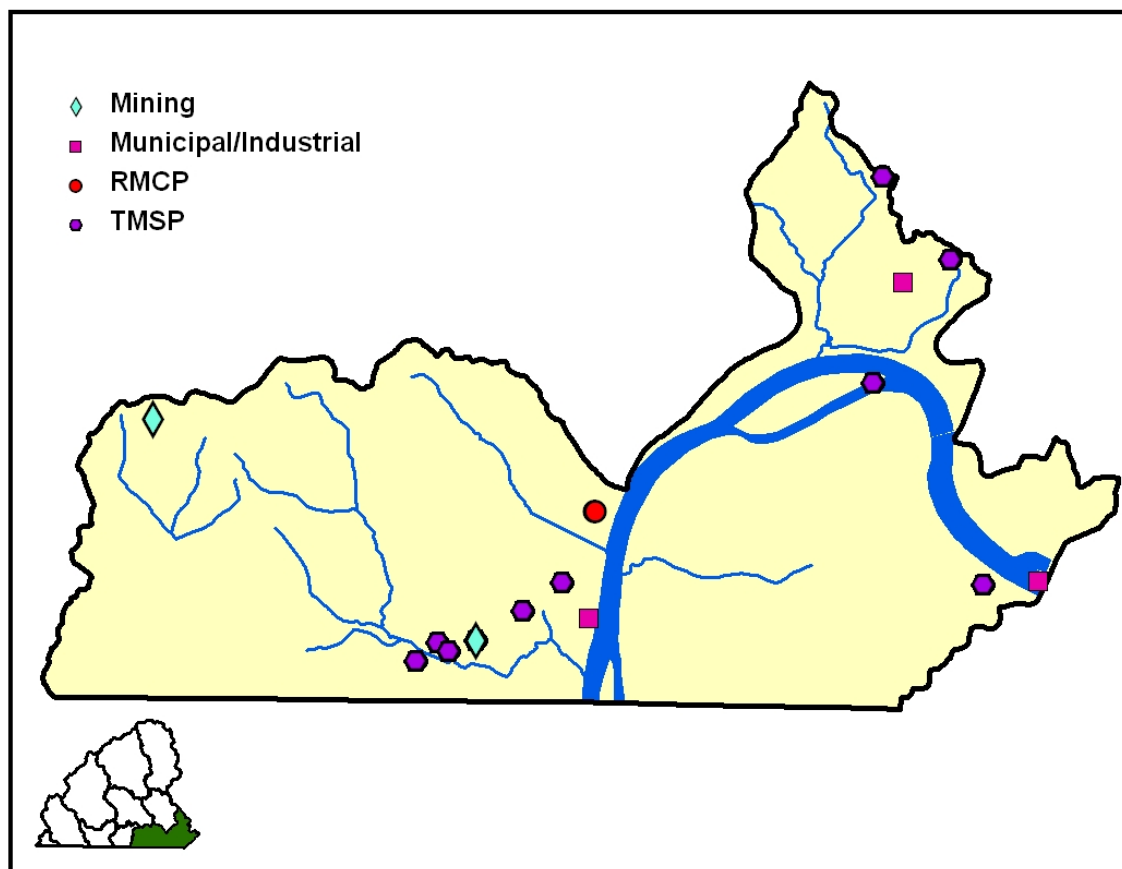


Figure 4-9. Location of Permits Issued in Subwatershed 060300010101. More information, including the names of facilities, is provided in Appendix IV.

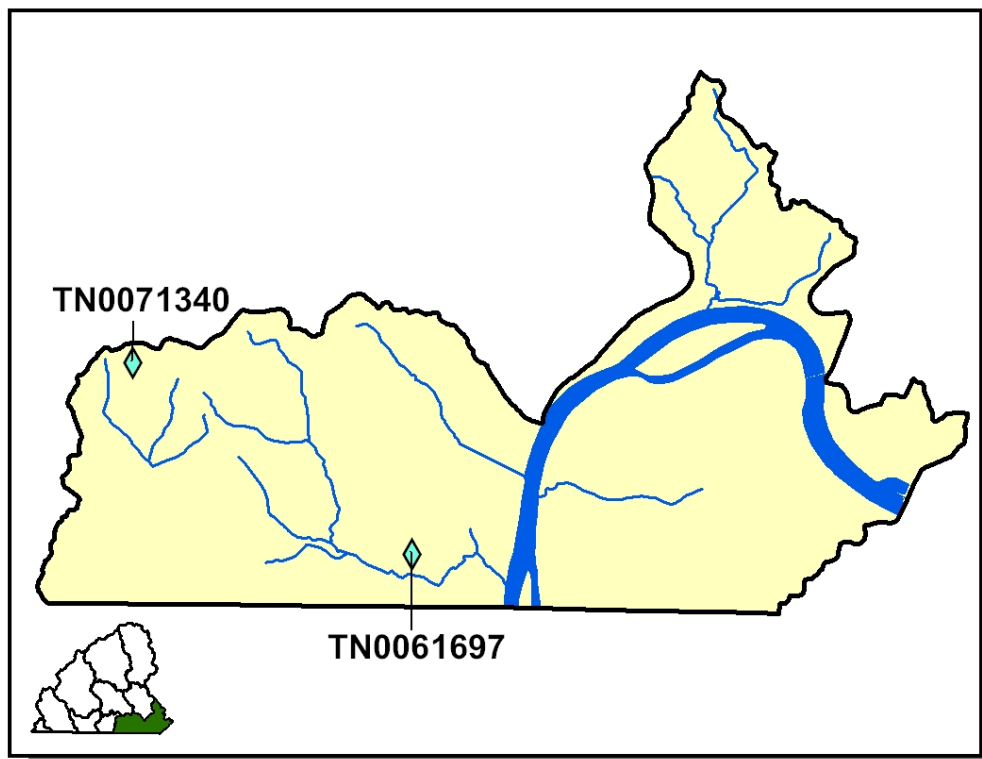


Figure 4-10. Location of permitted MINING facilities in Subwatershed 060300010101. More information is provided in Appendix IV.

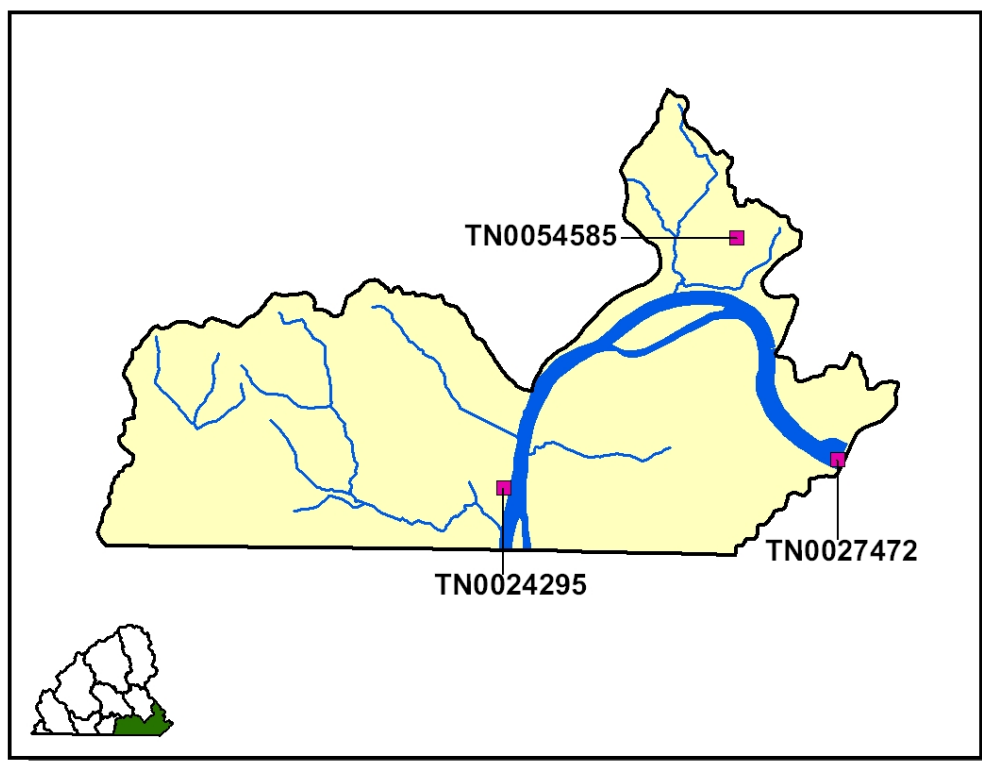


Figure 4-11. Location of permitted MUNICIPAL and INDUSTRIAL facilities in subwatershed 060300010101. More information, including the name of the facility is provided in Appendix IV.

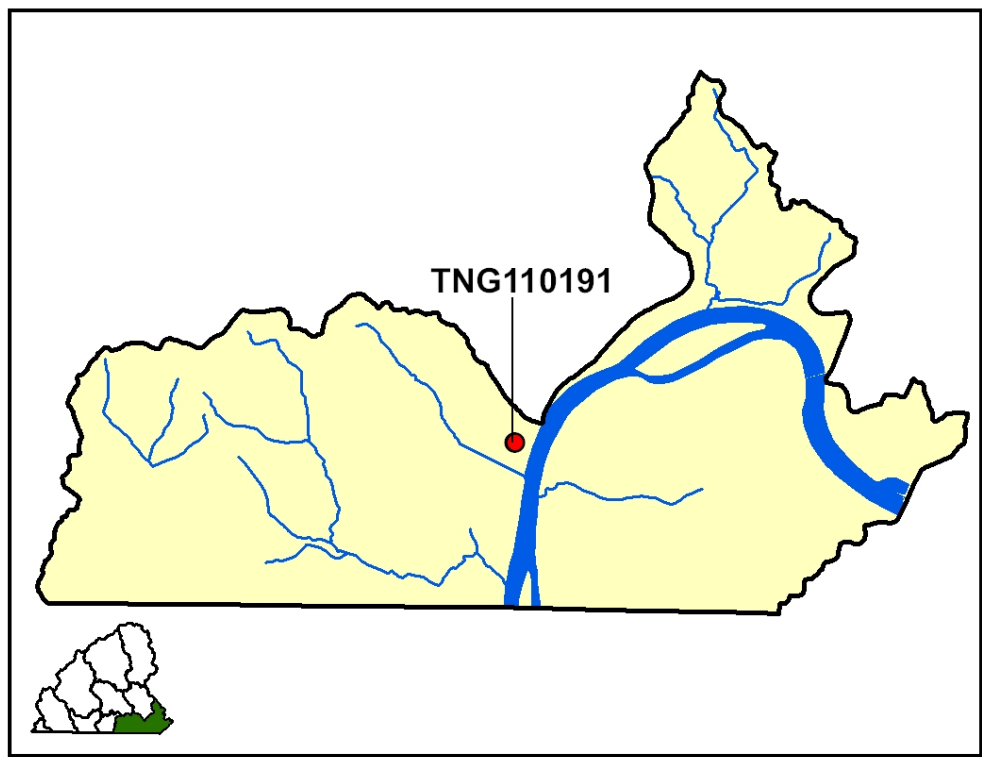


Figure 4-12. Location of RMCP (Ready Mix Concrete Plant) facilities in Subwatershed 060300010101. More information, including the names of facilities, is provided in Appendix IV.

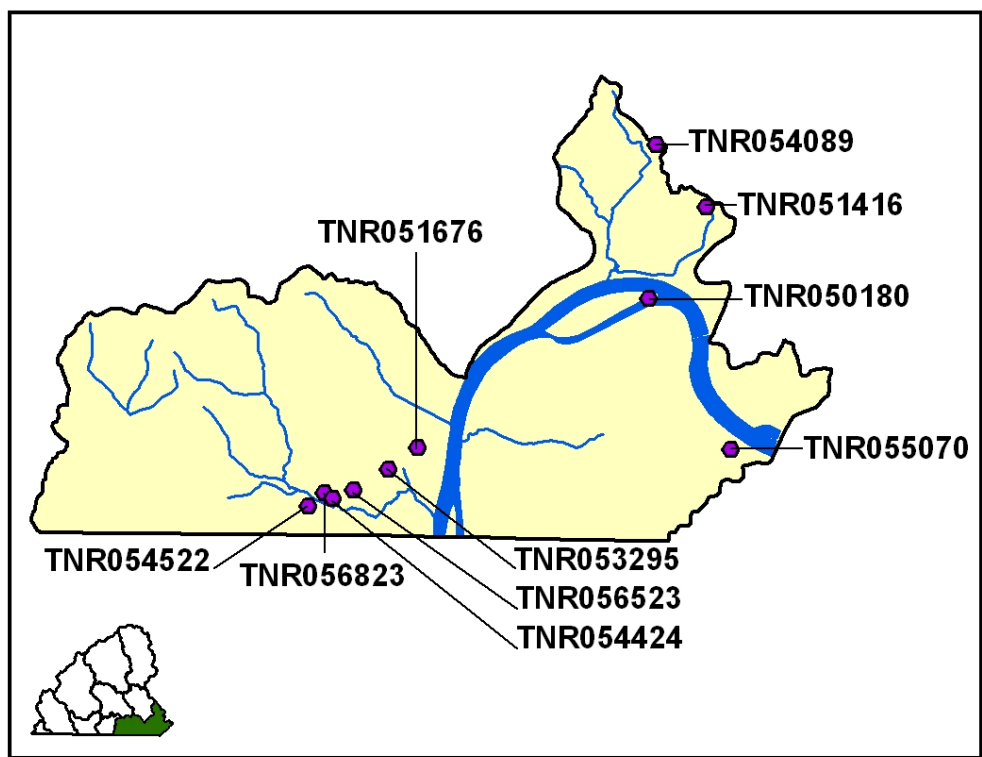


Figure 4-13. Location of TMSP (Tennessee Multi Sector Permit) Sites in Subwatershed 060300010101. More information is provided in Appendix IV.

4.2.A.iv. Nonpoint Source Contributions.

LIVESTOCK COUNTS						
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
Marion	4,424	8,939	311	246	279	

Table 4-5. Summary of Livestock Count Estimates by County. According to the 1997 Census of Agriculture (<http://www.agcensus.usda.gov/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

CROPS	TONS/ACRE/YEAR
Other Vegetable and Truck Crop	7.28
Soybeans (Row Crops)	4.56
Corn (Row Crops)	3.55
Grass (Pastureland)	0.62
Grass Forbs Legumes Mixed (Pastureland)	0.29
Other (Horticultural)	0.29
Farmsteads and Ranch Headquarters	0.19

Table 4-6. Annual Estimated Total Soil Loss in Subwatershed 060300010101.

4.2.B. 060300010103 (Dry Creek).

4.2.B.i. General Description.

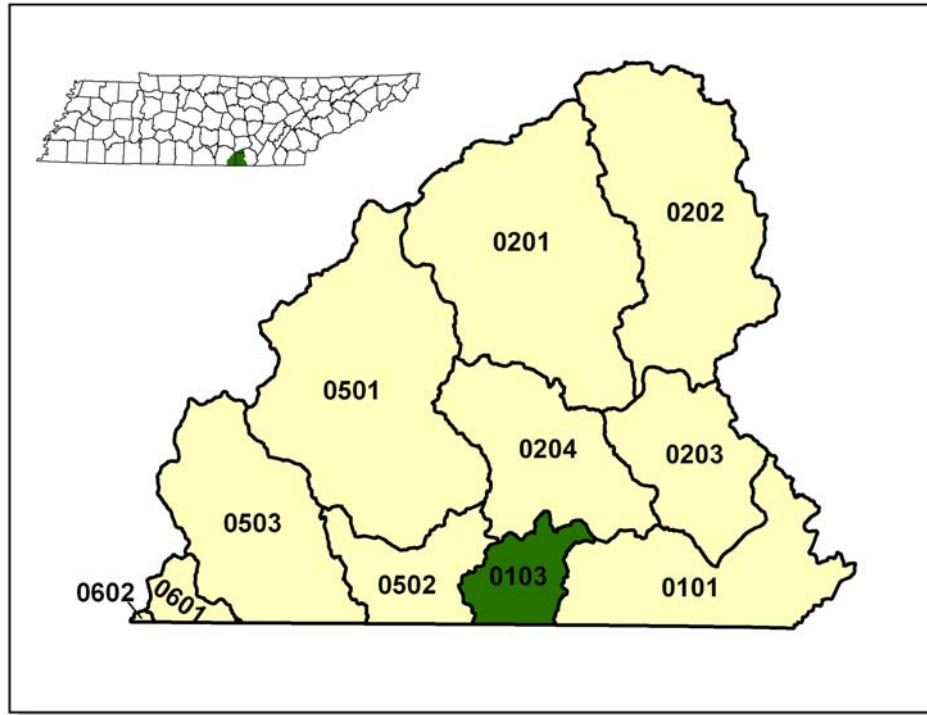


Figure 4-14. Location of Subwatershed 060300010103. All Guntersville Lake HUC-12 subwatershed boundaries in Tennessee are shown for reference.

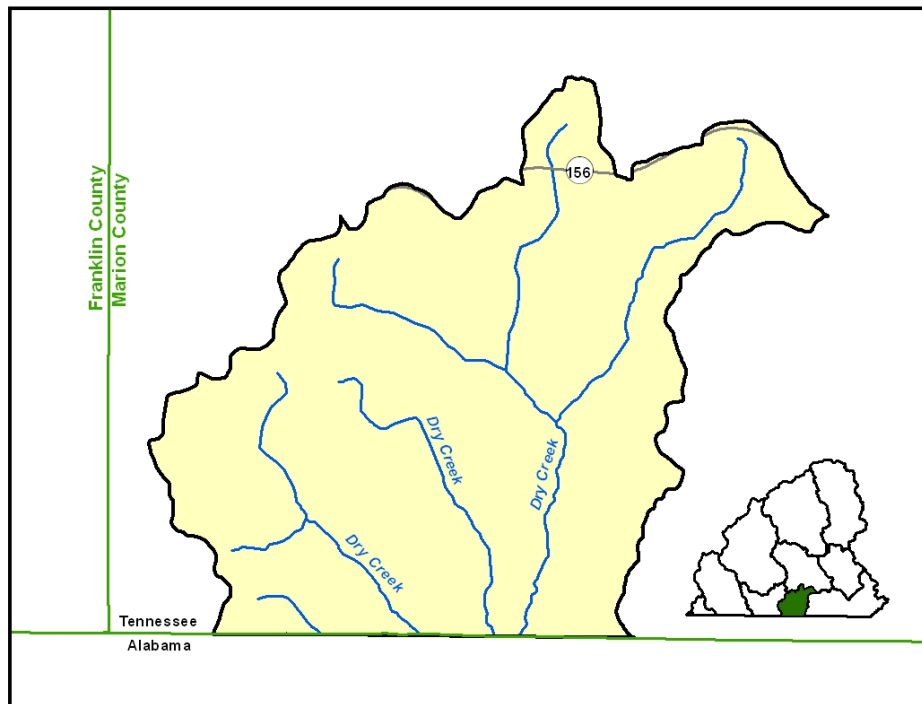


Figure 4-15. Locational Details of Subwatershed 060300010103.

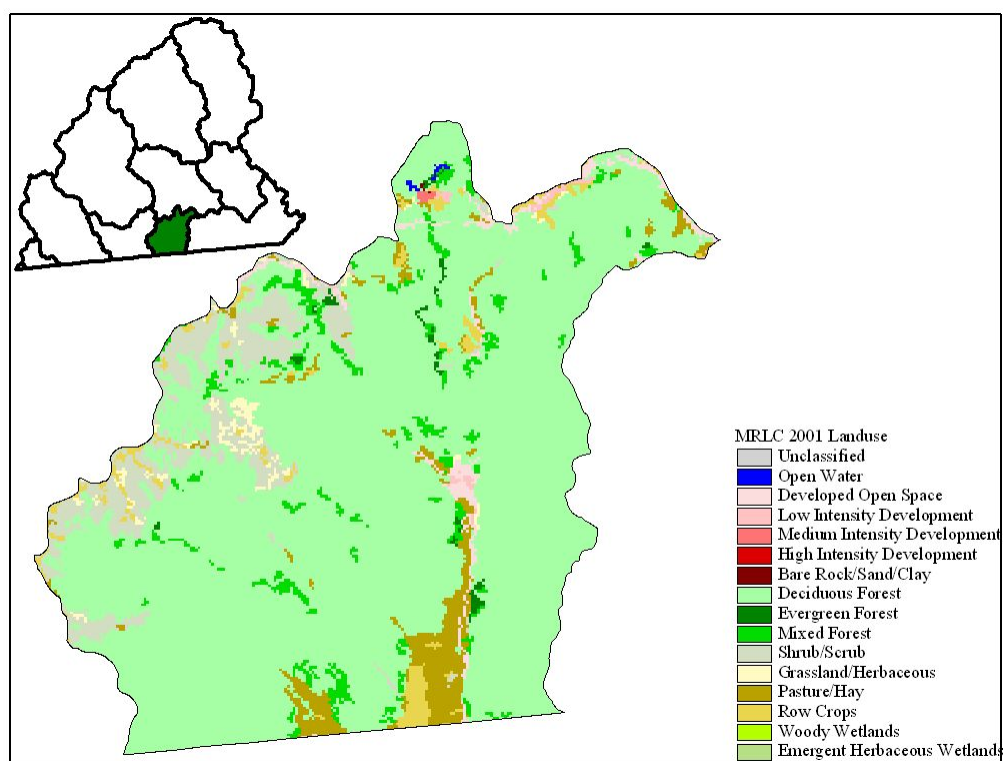


Figure 4-16. Illustration of Land Use Distribution in Subwatershed 060300010103.

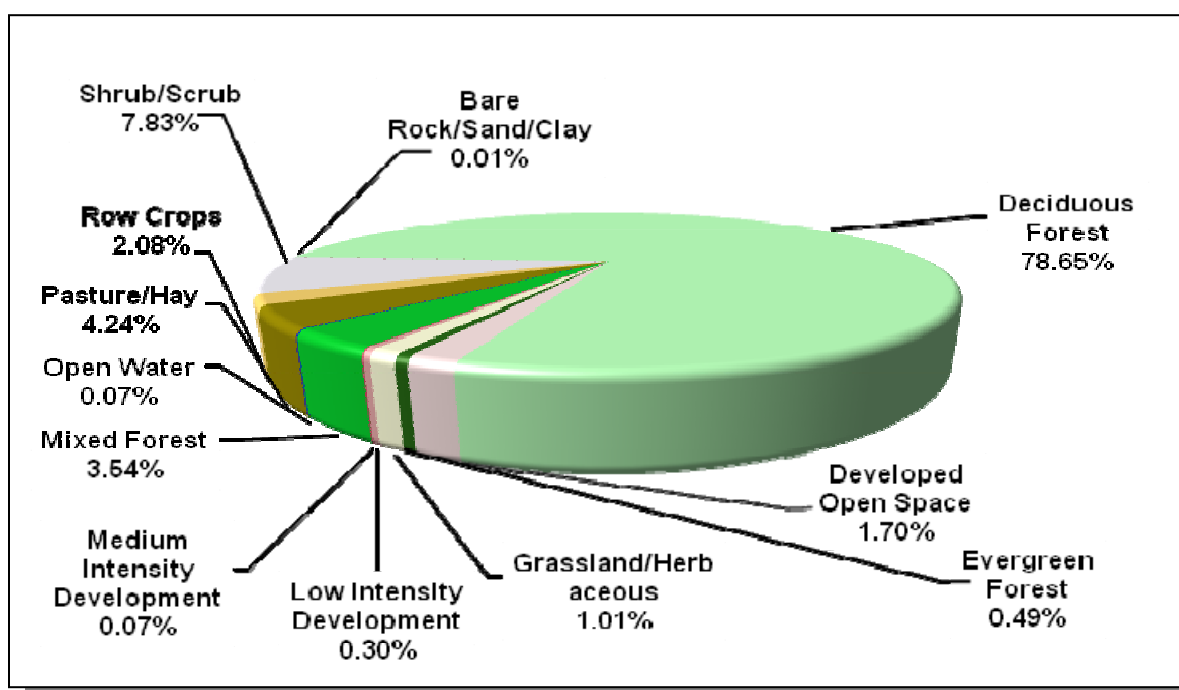


Figure 4-17. Land Use Distribution in Subwatershed 060300010103. More information is provided in Appendix IV.

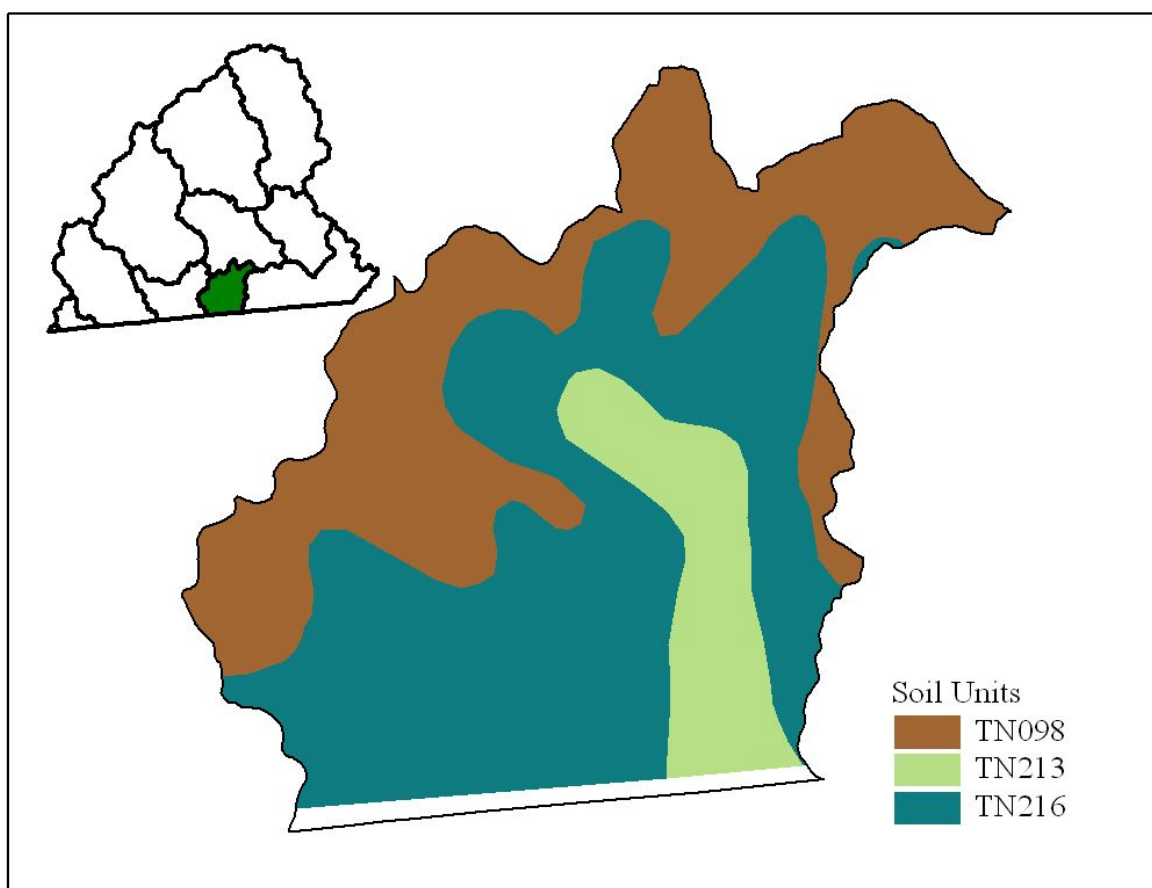


Figure 4-18. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060300010103.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN095	0.00	B	2.35	5.12	Loam	0.31
TN098	1.00	C	3.98	4.82	Loam	0.32
TN213	9.00	C	1.89	5.30	Loam	0.35
TN216	0.00	C	2.51	4.59	Loam	0.25

Table 4-7. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060300010103. The definition of "Hydrologic Group" is provided in Appendix IV.

DRAFT

County	COUNTY POPULATION			% of County in Watershed	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Marion	24,860	26,674	27,776	2.02	503	540	562	11.70

Table 4-8. Population Estimates in Subwatershed 060300010103.

			NUMBER OF HOUSING UNITS			
Populated Place	County	Population	Total	Public Sewer	Septic Tank	Other
Orme	Marion	156	61	6	55	0

Table 4-9. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 060300010103.

4.2.B.ii. USGS Gaging Stations and STORET Sites.

There are no USGS continuous record gaging stations or STORET sites located in subwatershed 060300010103.

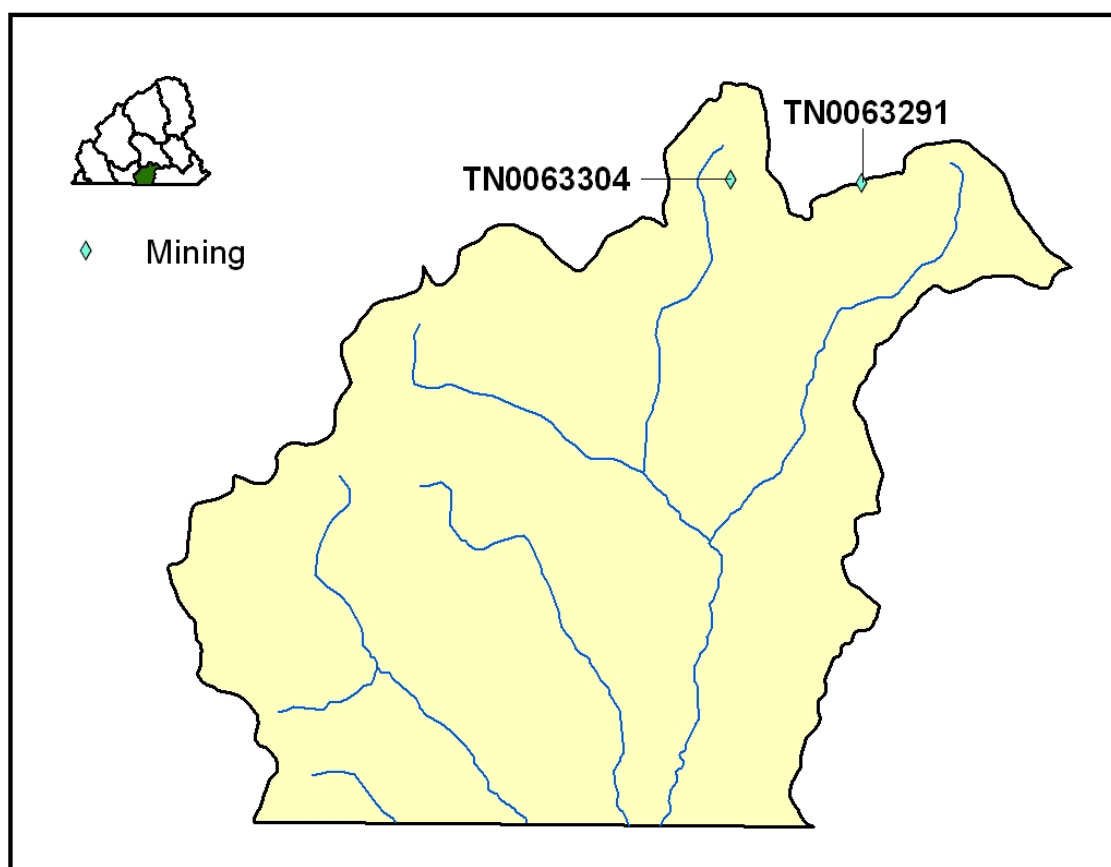
4.2.B.iii. Permitted Activities.

Figure 4-19. Location of Permits Issued in Subwatershed 060300010103. More information, including the names of facilities, is provided in Appendix IV.

4.2.B.iv. Nonpoint Source Contributions.

LIVESTOCK COUNTS						
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
Marion	4,424	8,939	311	246	279	

Table 4-10. Summary of Livestock Count Estimates by County. According to the 1997 Census of Agriculture (<http://www.agcensus.usda.gov/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

CROPS	TONS/ACRE/YEAR
Other Vegetable and Truck Crop	7.28
Soybeans (Row Crops)	4.56
Corn (Row Crops)	3.55
Grass (Pastureland)	0.62
Grass Forbs Legumes Mixed (Pastureland)	0.29
Other (Horticultural)	0.29
Farmsteads and Ranch Headquart	0.19

Table 4-11. Annual Estimated Total Soil Loss in Subwatershed 060300010103.

4.2.C. 060300010201 (Battle Creek, Upper).

4.2.C.i. General Description.

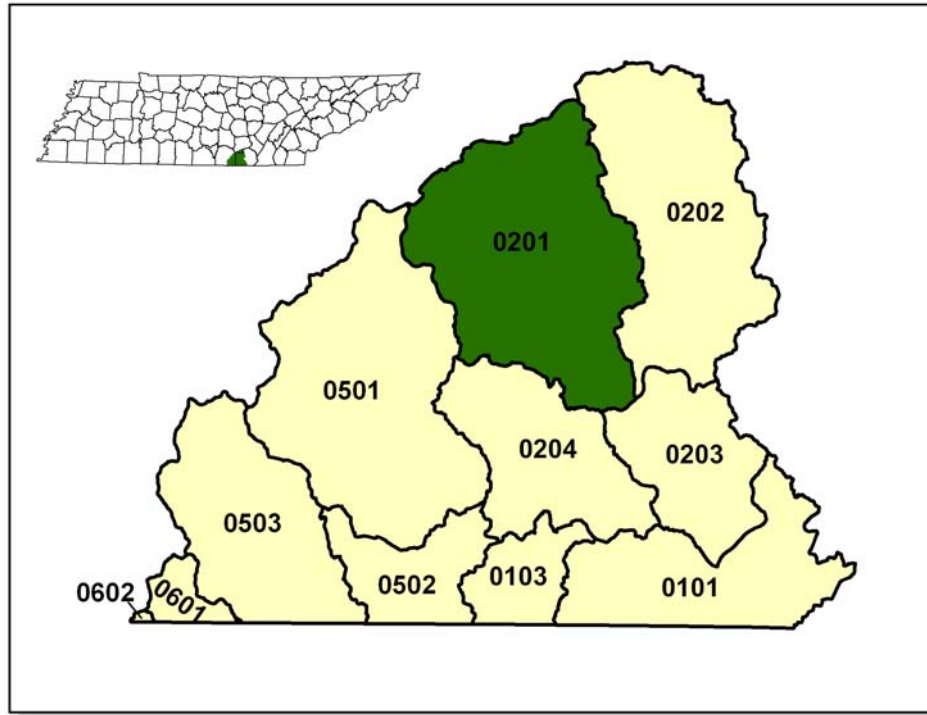


Figure 4-20. Location of Subwatershed 060300010201. All Guntersville Lake HUC-12 subwatershed boundaries in Tennessee are shown for reference.

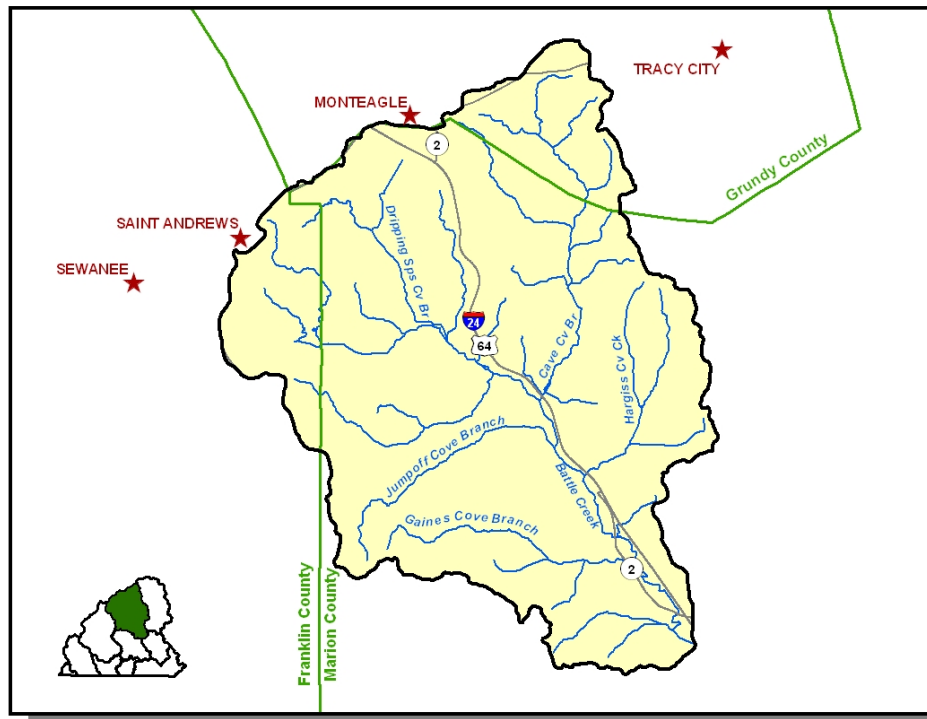


Figure 4-21. Locational Details of Subwatershed 060300010201.

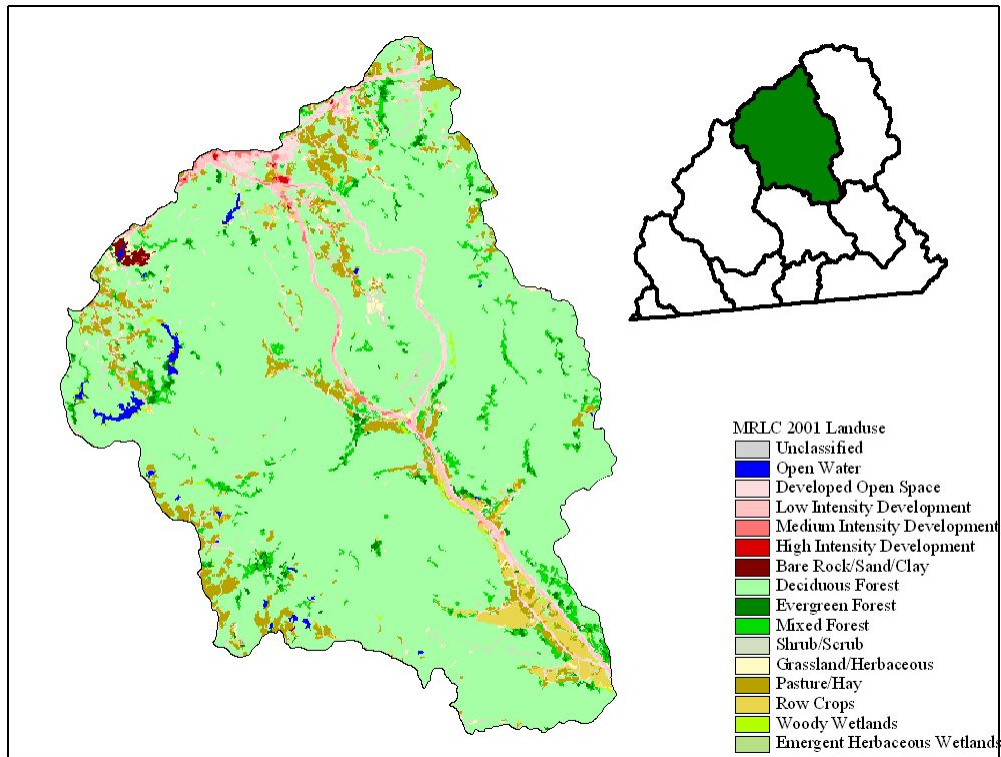


Figure 4-22. Illustration of Land Use Distribution in Subwatershed 060300010201.

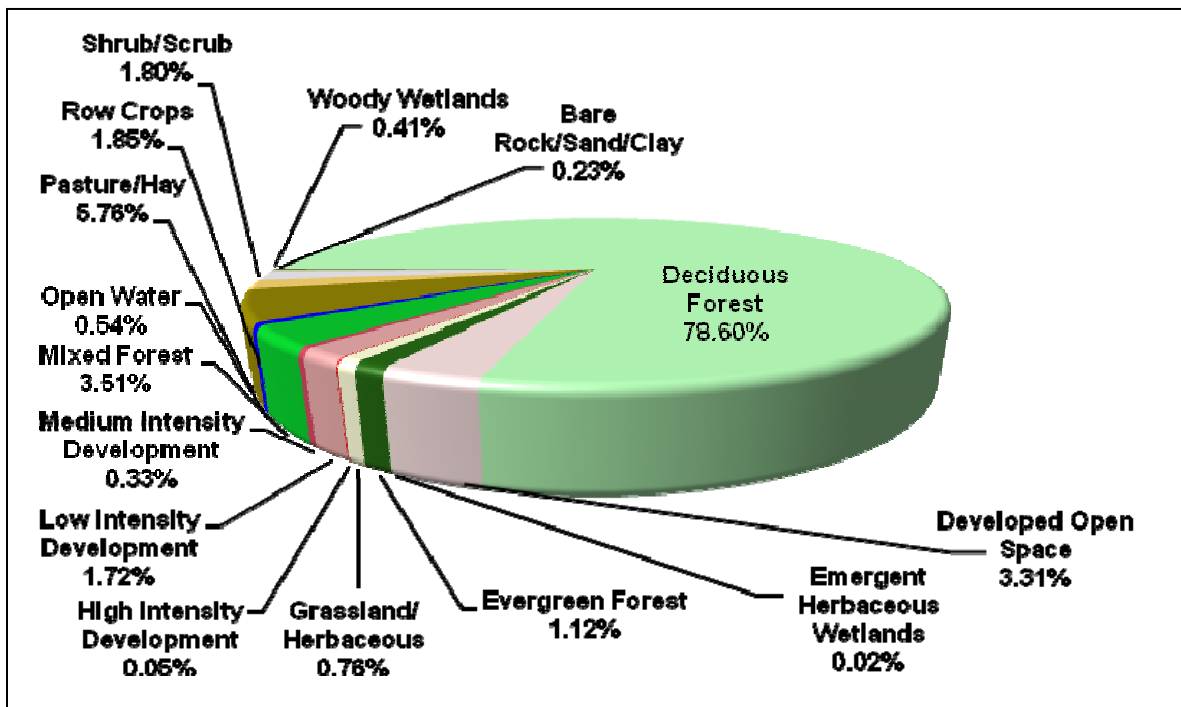


Figure 4-23. Land Use Distribution in Subwatershed 060300010201. More information is provided in Appendix IV.

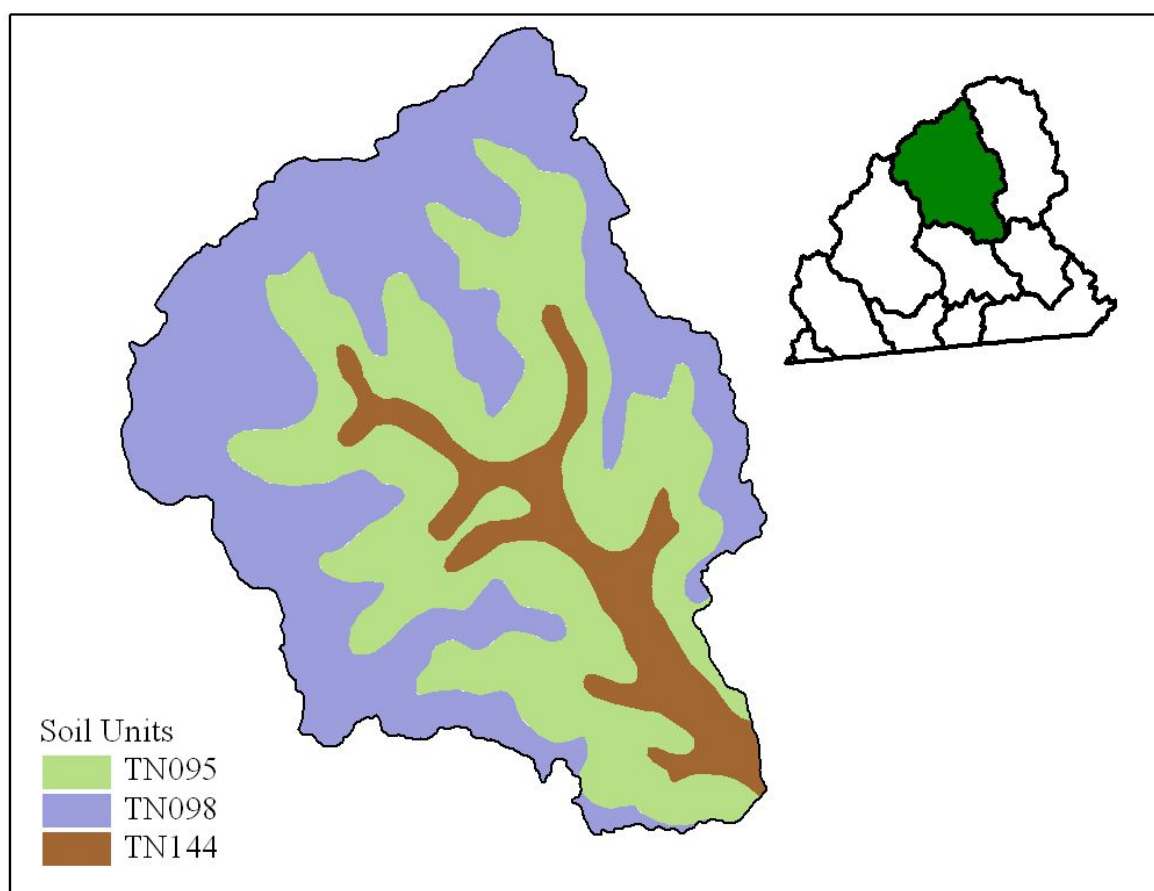


Figure 4-24. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060300010201.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN095	0.00	B	2.35	5.12	Loam	0.31
TN098	1.00	C	3.98	4.82	Loam	0.32
TN144	0.00	B	2.43	5.43	Loam	0.31

Table 4-12. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060300010201. The definition of "Hydrologic Group" is provided in Appendix IV.

County	COUNTY POPULATION			% of County in Watershed	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Franklin	34,725	37,152	39,270	0.74	257	275	291	13.20
Grundy	13,362	14,012	14,332	1.04	139	145	149	7.20
Marion	24,860	26,674	27,776	10.19	2,533	2,717	2,830	11.70
Totals	72,947	77,838	81,378		2,929	3,137	3,270	11.60

Table 4-13. Population Estimates in Subwatershed 060300010201.

			NUMBER OF HOUSING UNITS			
Populated Place	County	Population	Total	Public Sewer	Septic Tank	Other
Monteagle	Grundy	1,187	453	258	191	4
Tracy City	Grundy	1,512	660	43	603	14
Total		2,699	1,113	301	794	18

Table 4-14. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 060300010201.

4.2.C.ii. USGS Gaging Stations and STORET Sites.

There are no USGS continuous record gaging stations located in subwatershed 060300010201.

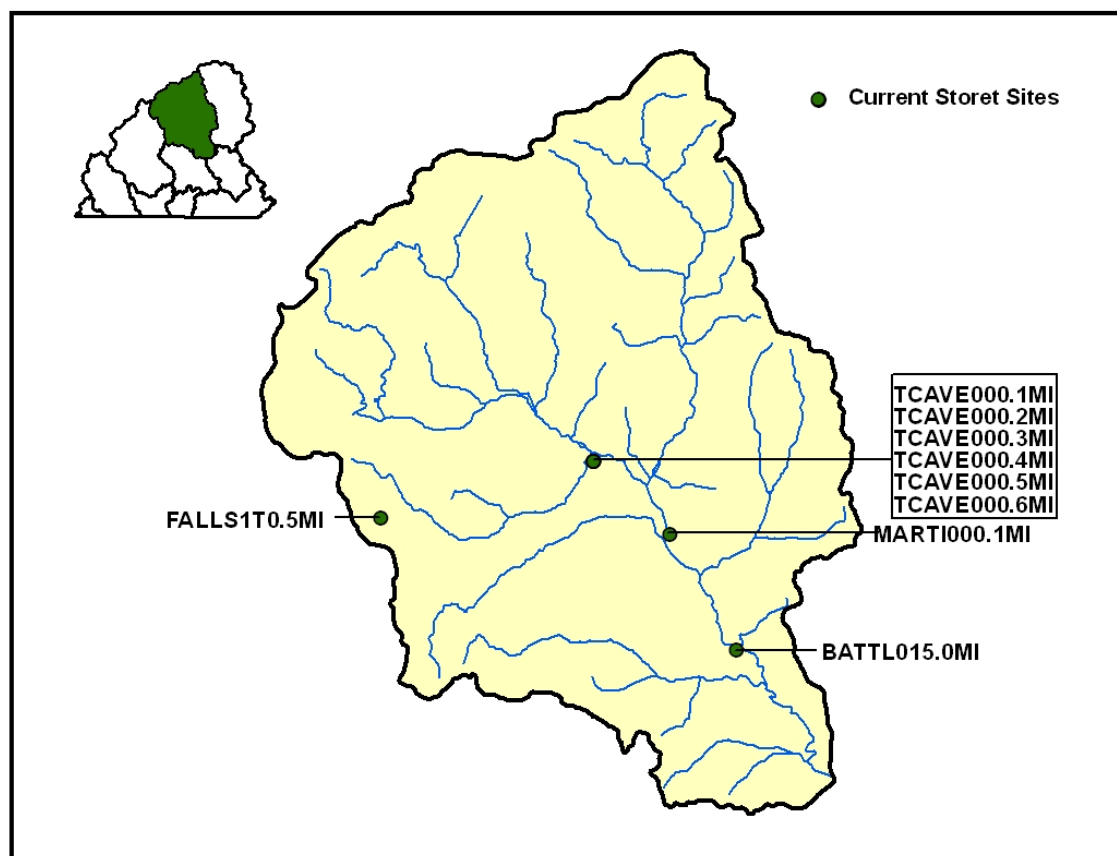


Figure 4-25. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 060300010201. More information, including site names and locations, is provided in Appendix IV.

4.2.C.iii. Permitted Activities.

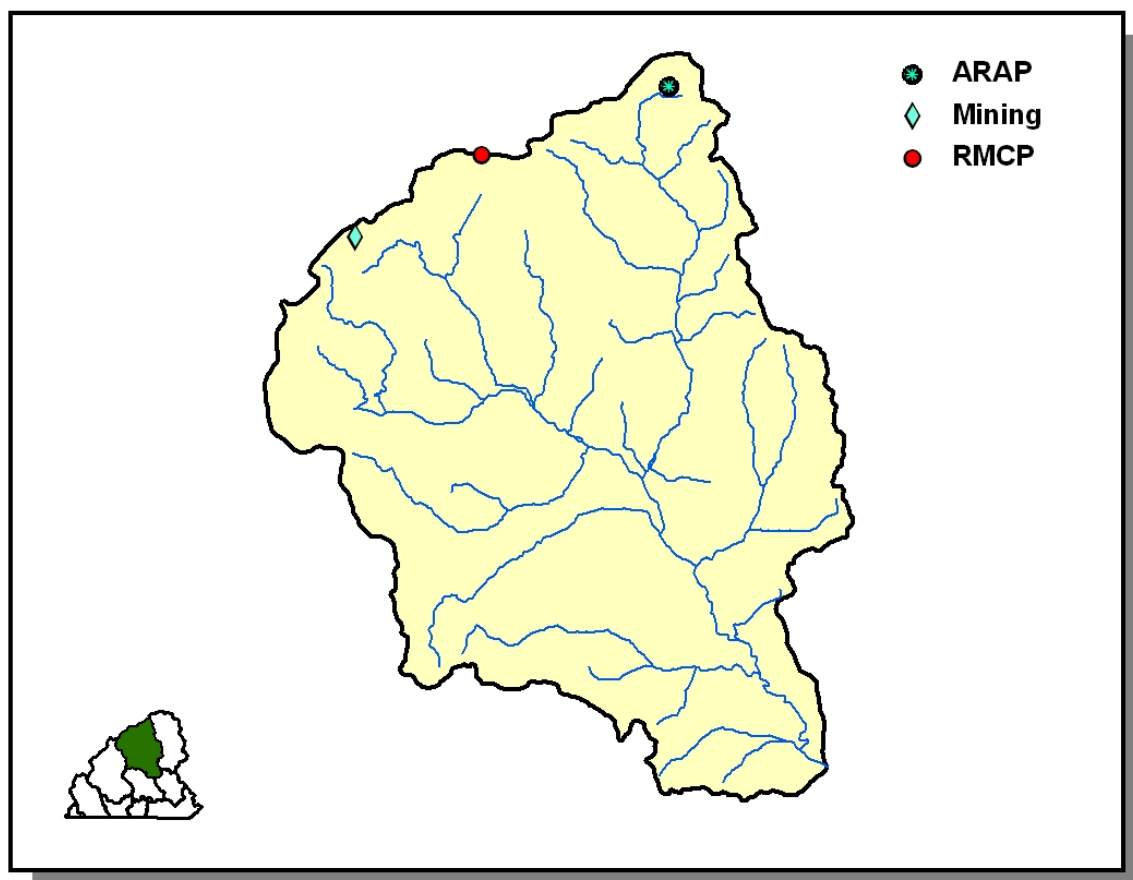


Figure 4-26. Location of Permits Issued in Subwatershed 060300010201. More information, including the names of facilities, is provided in Appendix IV.

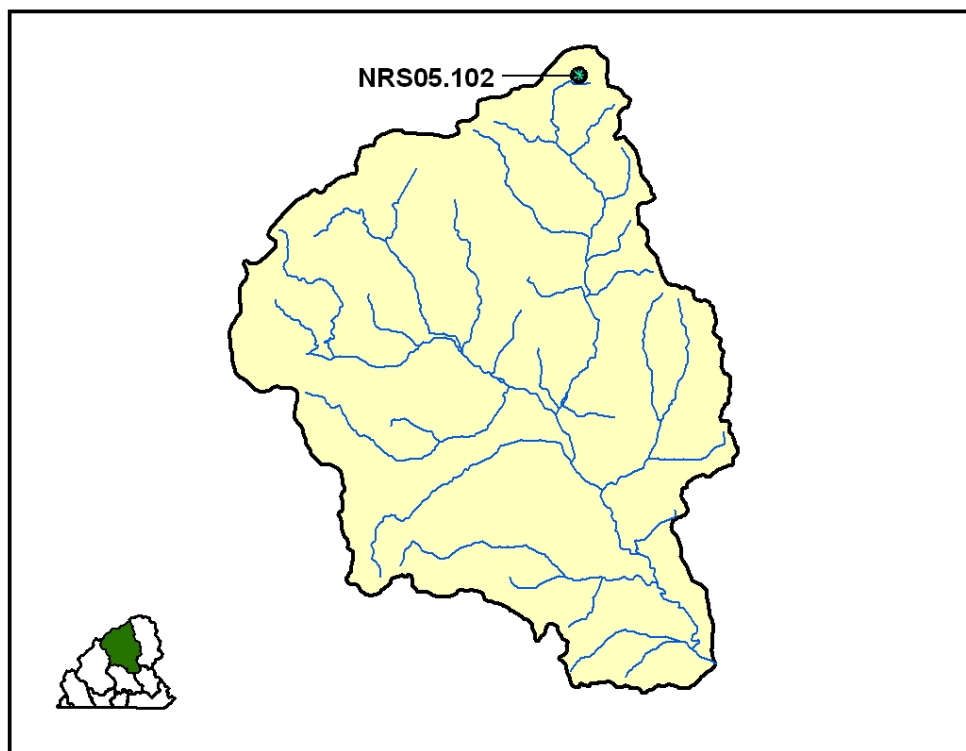


Figure 4-27. Location of ARAP (Aquatic Resource Alteration Permit) Sites in Subwatershed 060300010201. More information is provided in Appendix IV.

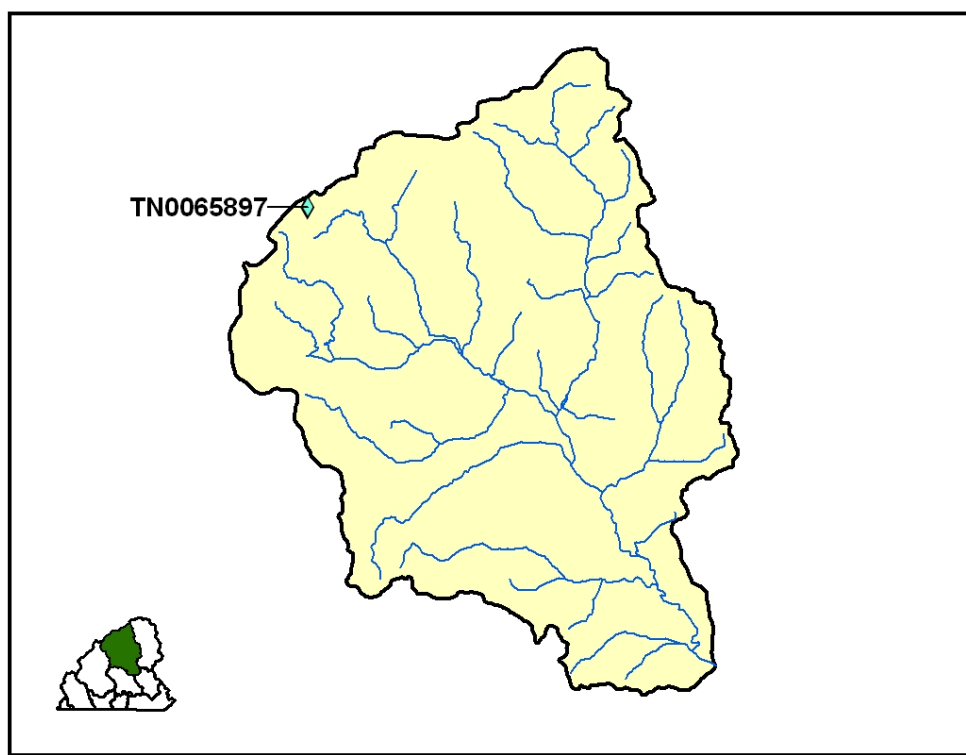


Figure 4-28. Location of permitted MINING facilities in Subwatershed 060300010201. More information is provided in Appendix IV.

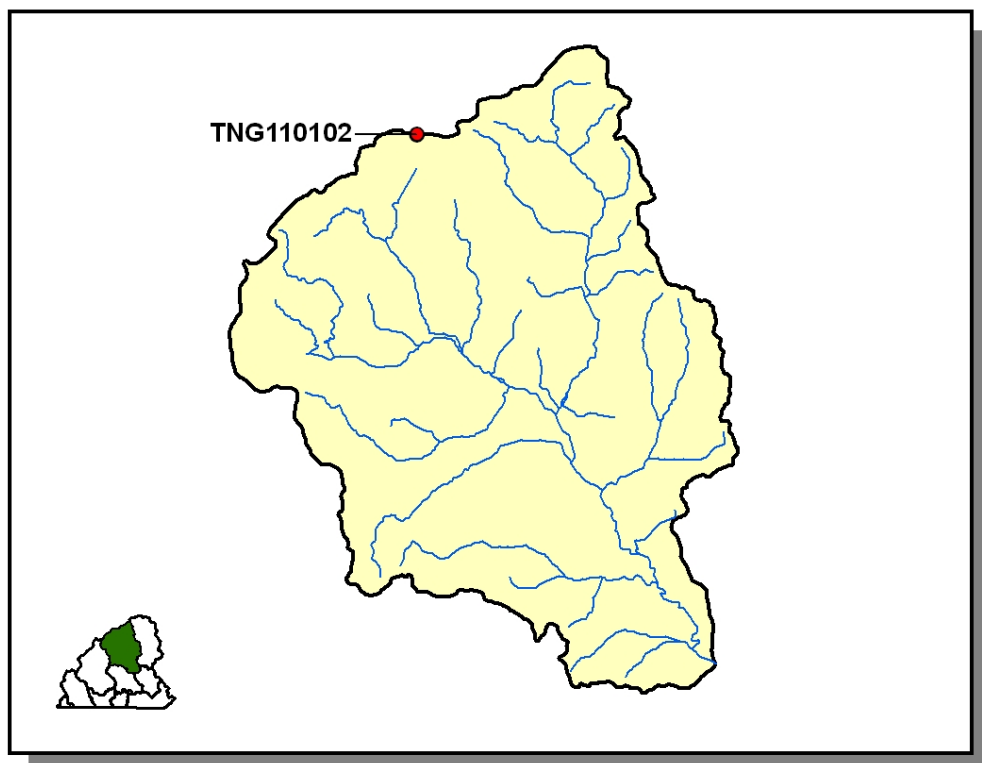


Figure 4-29. Location of RMCP (Ready Mix Concrete Plant) facilities in Subwatershed 060300010201. More information, including the names of facilities, is provided in Appendix IV.

4.2.C.iv. Nonpoint Source Contributions.

LIVESTOCK COUNTS						
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
Franklin	13,877	30,702	2,999	28	19,333	105
Grundy	3,276	7,673	466	68,155	1761	
Marion	4,424	8,939	311	246	279	

Table 4-15. Summary of Livestock Count Estimates by County. According to the 1997 Census of Agriculture (<http://www.agcensus.usda.gov/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Franklin	183.4	183.0	6.0	28.7
Grundy	174.5	165.9	5.6	17.7

Table 4-16. Forest Acreage and Annual Removal Rates (1987-1994) by County.

CROPS	TONS/ACRE/YEAR
Other Vegetable and Truck Crop	7.28
All Other Close Grown Cropland	5.82
Wheat (Close Grown Cropland)	5.55
Soybeans (Row Crops)	4.52
Corn (Row Crops)	3.79
Other Cropland not Planted	2.04
Legume (Hayland)	1.64
Other (Horticultural)	0.67
Grass (Pastureland)	0.60
Grass (Hayland)	0.39
Grass Forbs Legumes Mixed (Pastureland)	0.31
Legume Grass (Hayland)	0.19
Farmsteads and Ranch Headquarters	0.19
Conservation Reserve Program Land	0.09

Table 4-17. Annual Estimated Total Soil Loss in Subwatershed 060300010201.

4.2.D. 060300010202 (Big Fiery Gizzard Creek).

4.2.D.i. General Description.

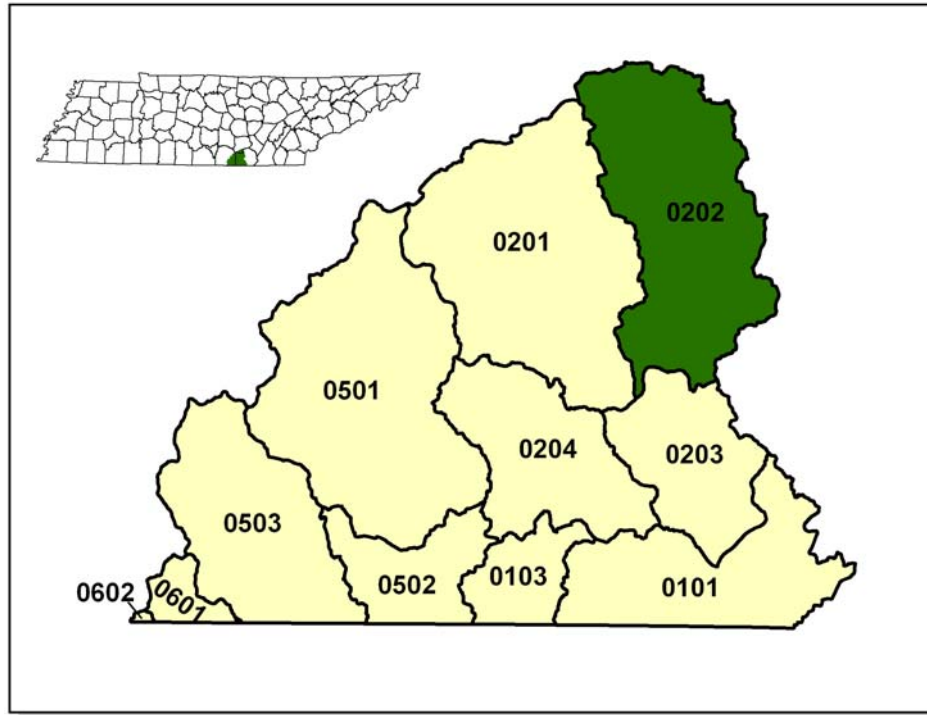


Figure 4-30. Location of Subwatershed 060300010202. All Guntersville Lake HUC-12 subwatershed boundaries in Tennessee are shown for reference.

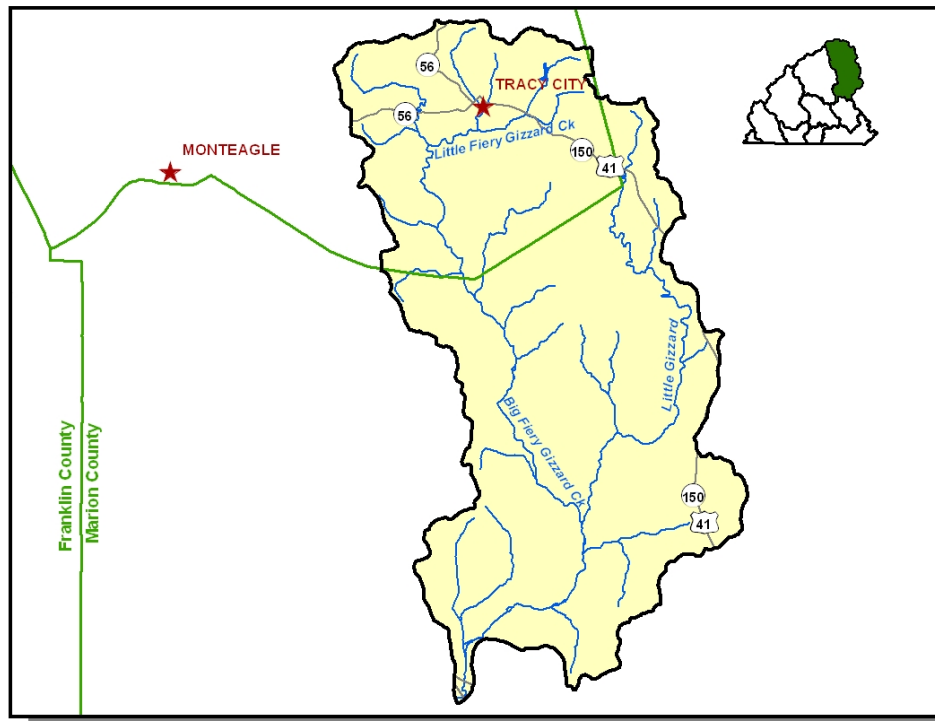


Figure 4-31. Locational Details of Subwatershed 060300010202.

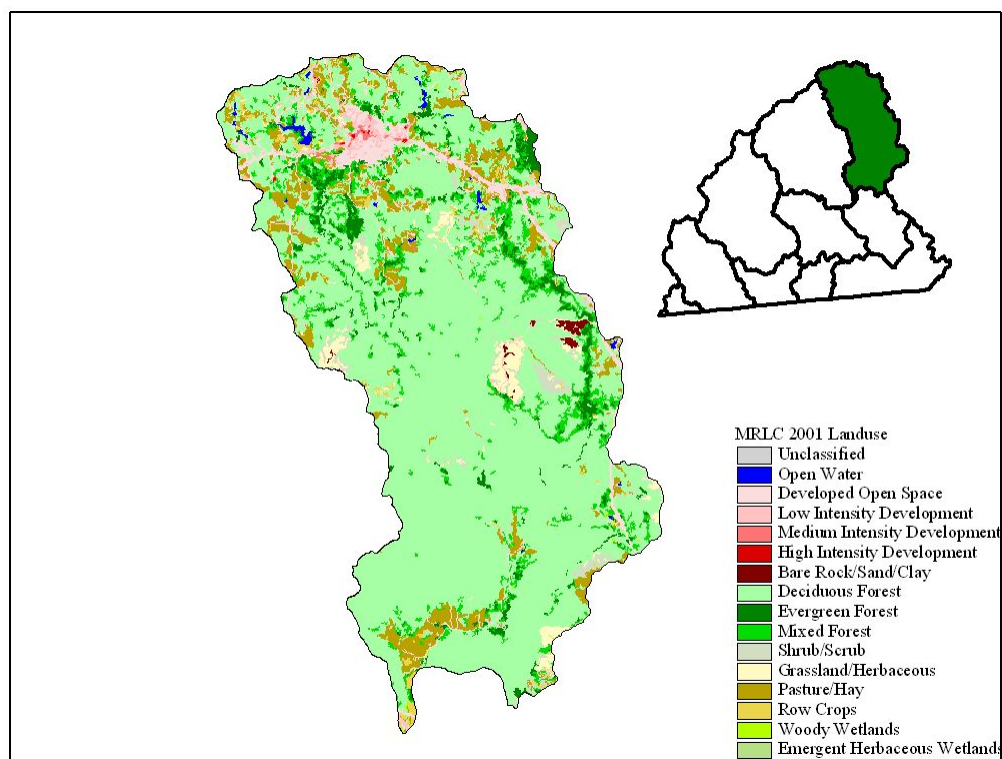


Figure 4-32. Illustration of Land Use Distribution in Subwatershed 060300010202.

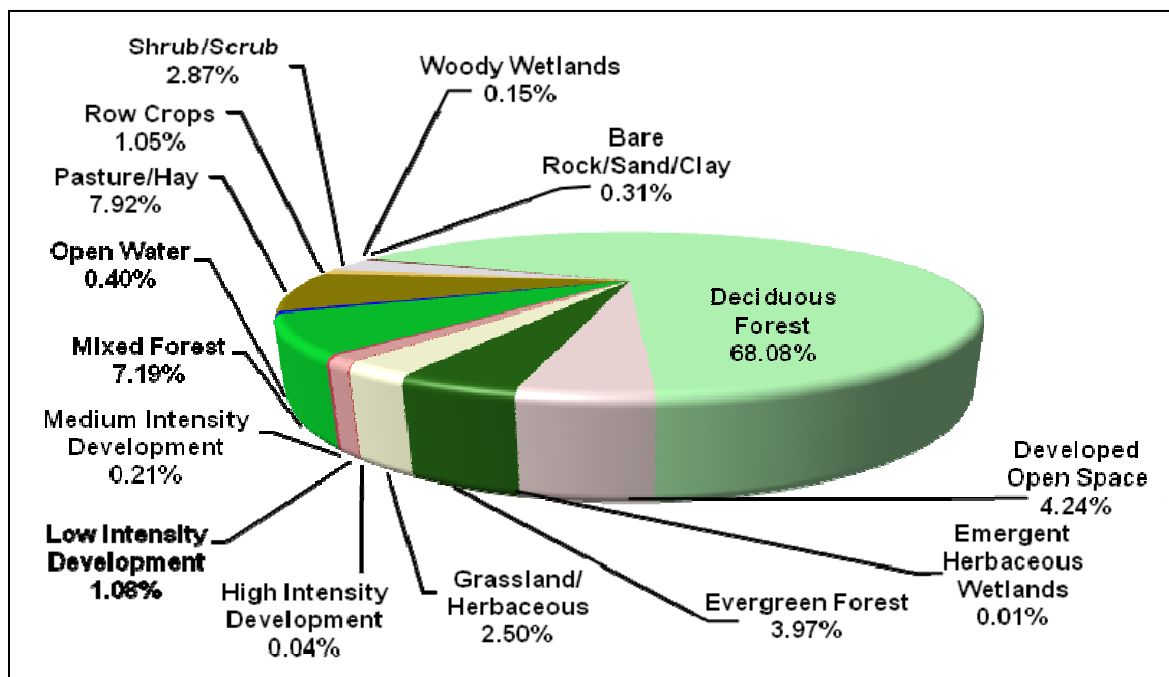


Figure 4-33. Land Use Distribution in Subwatershed 060300010202. More information is provided in Appendix IV.

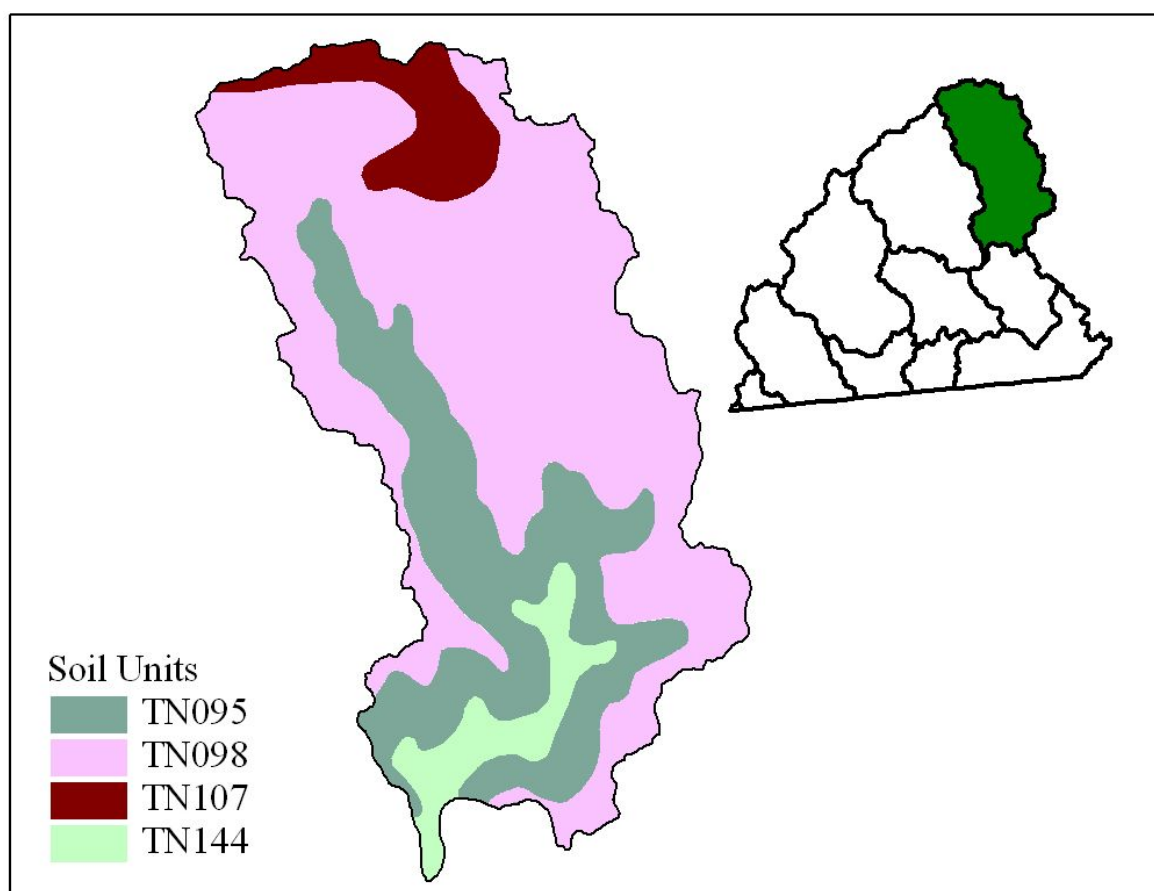


Figure 4-34. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060300010202.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN095	0.00	B	2.35	5.12	Loam	0.31
TN098	1.00	C	3.98	4.82	Loam	0.32
TN107	1.00	C	6.34	4.84	Loam	0.28
TN144	0.00	B	2.43	5.43	Loam	0.31

Table 4-18. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060300010202. The definition of "Hydrologic Group" is provided in Appendix IV.

County	COUNTY POPULATION			% of County in Watershed	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Grundy	13,362	14,012	14,332	4.06	542	568	581	7.20
Marion	24,860	26,674	27,776	7.15	1,776	1,906	1,985	11.80
Totals	38,222	40,686	42,108		2,318	2,474	2,566	10.70

Table 4-19. Population Estimates in Subwatershed 060300010202.

			NUMBER OF HOUSING UNITS			
Populated Place	County	Population	Total	Public Sewer	Septic Tank	Other
Tracy City	Grundy	1,512	660	43	603	14

Table 4-20. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 060300010202.

4.2.D.ii. USGS Gaging Stations and STORET Sites.

There are no USGS continuous record gaging stations located in subwatershed 060300010202.

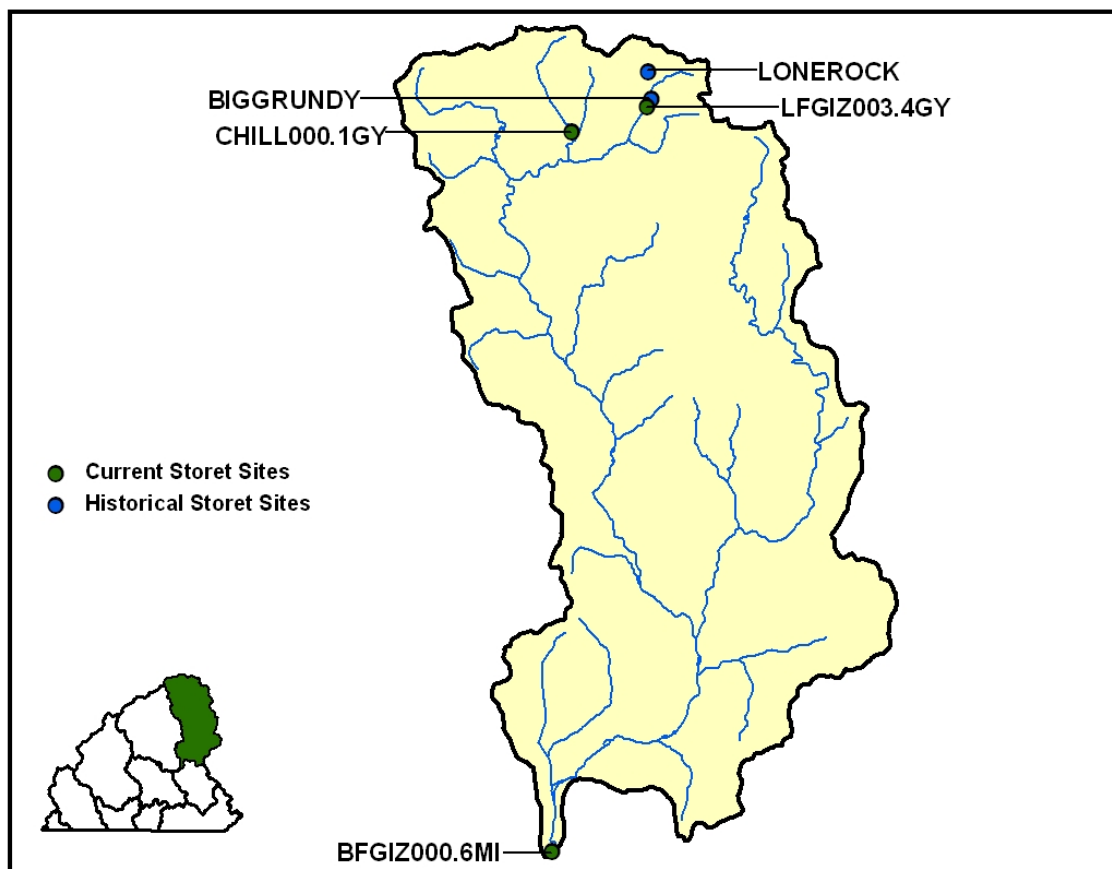


Figure 4-35. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 060300010202. More information, including site names and locations, is provided in Appendix IV.

4.2.D.iii. Permitted Activities.

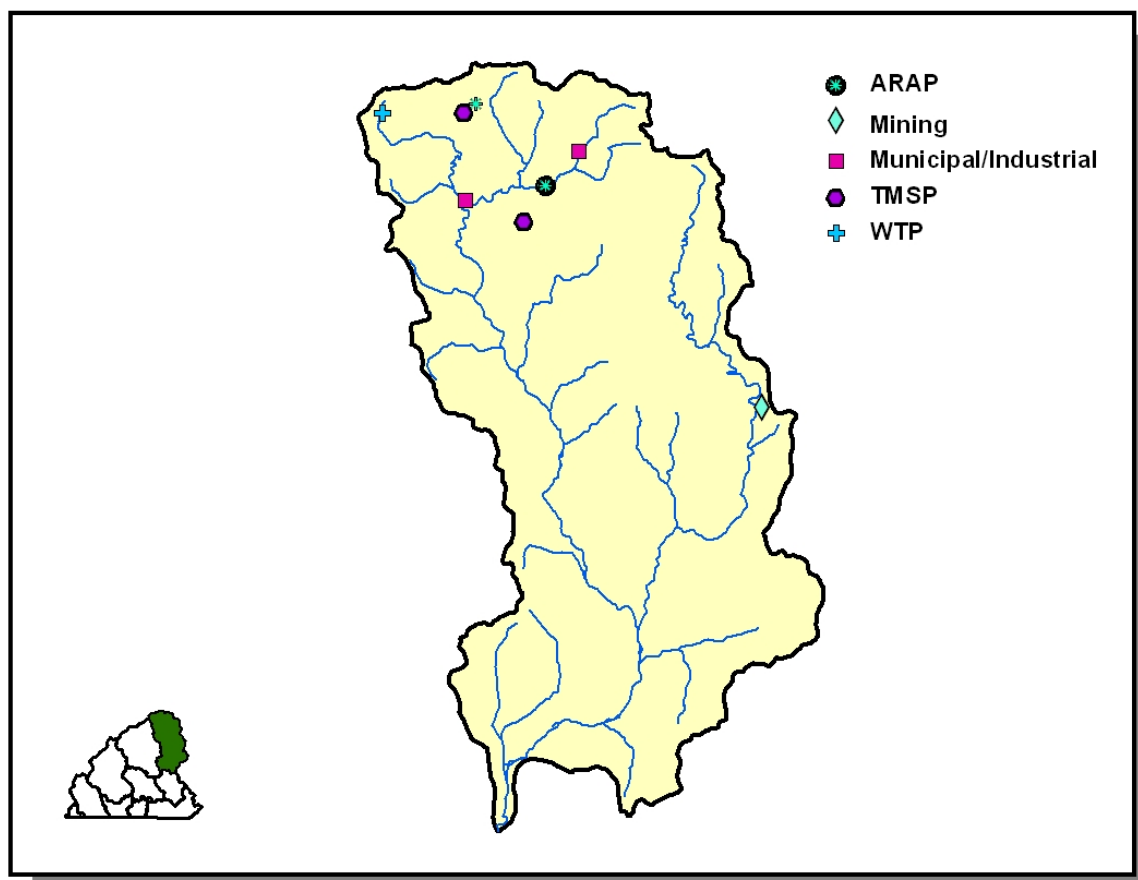


Figure 4-36. Location of Permits Issued in Subwatershed 060300010202. More information, including the names of facilities, is provided in Appendix IV.

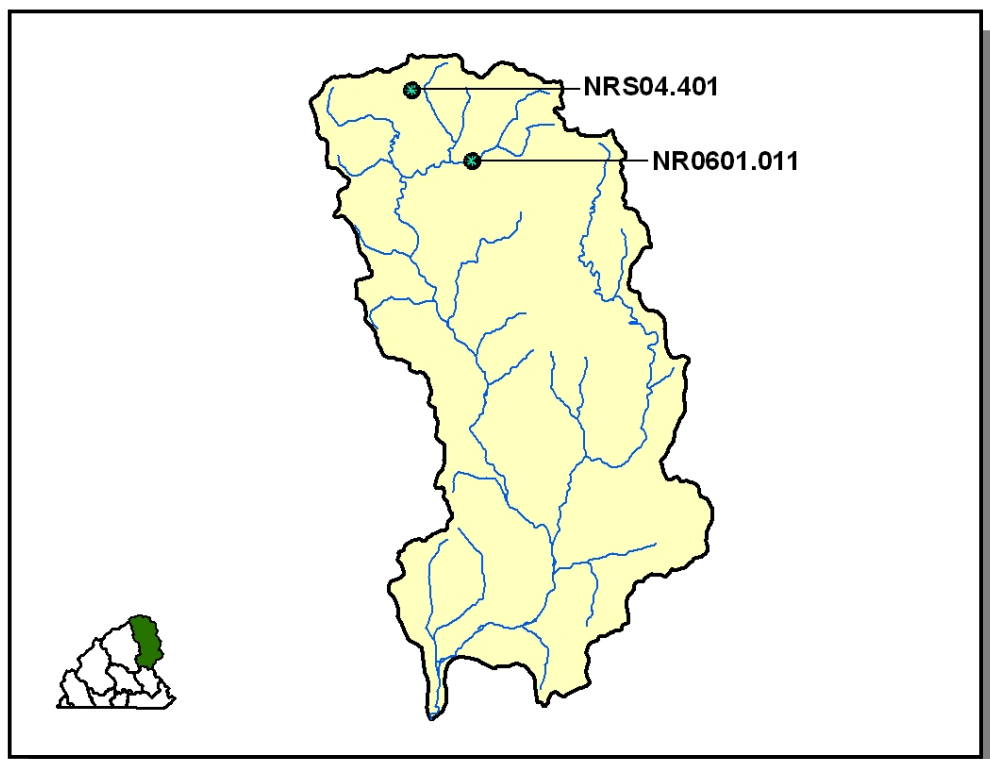


Figure 4-37. Location of ARAP (Aquatic Resource Alteration Permit) Sites in Subwatershed 060300010202. More information is provided in Appendix IV.

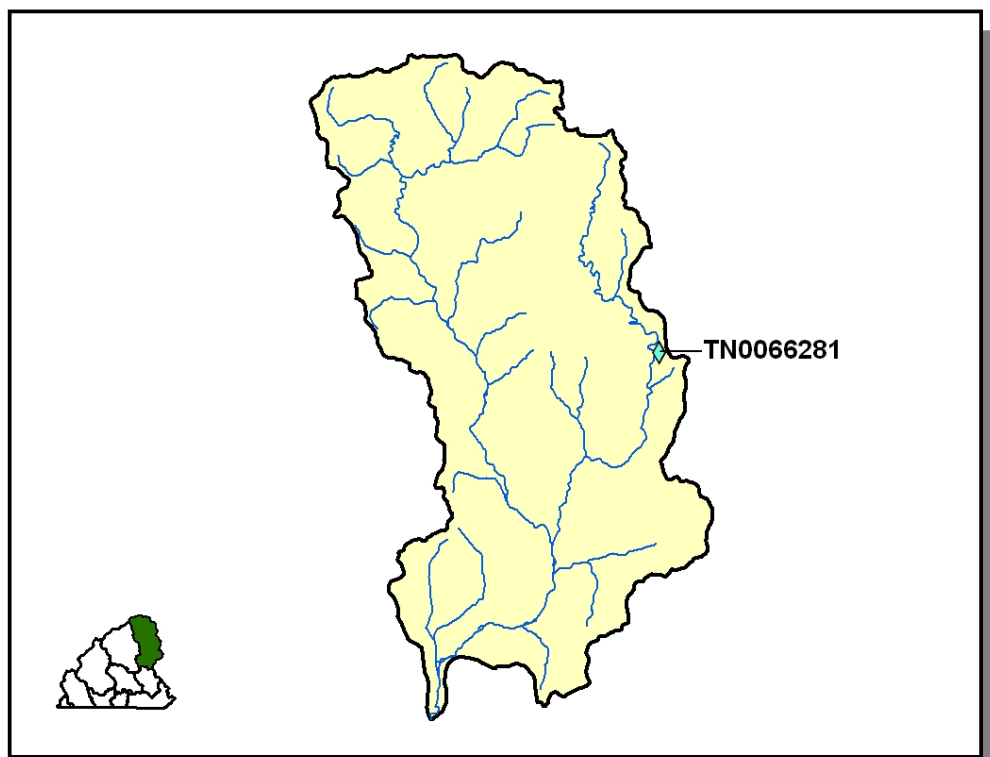


Figure 4-38. Location of permitted MINING facilities in Subwatershed 060300010202. More information is provided in Appendix IV.

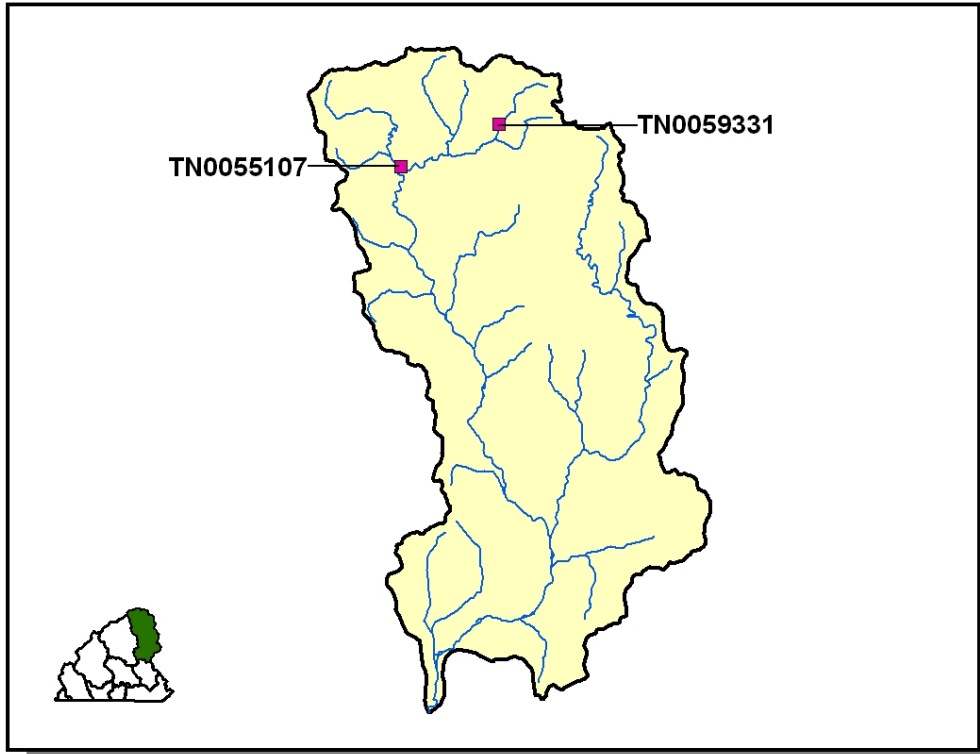


Figure 4-39. Location of permitted MUNICIPAL and INDUSTRIAL facilities in subwatershed 060300010202. More information, including the name of the facility is provided in Appendix IV.

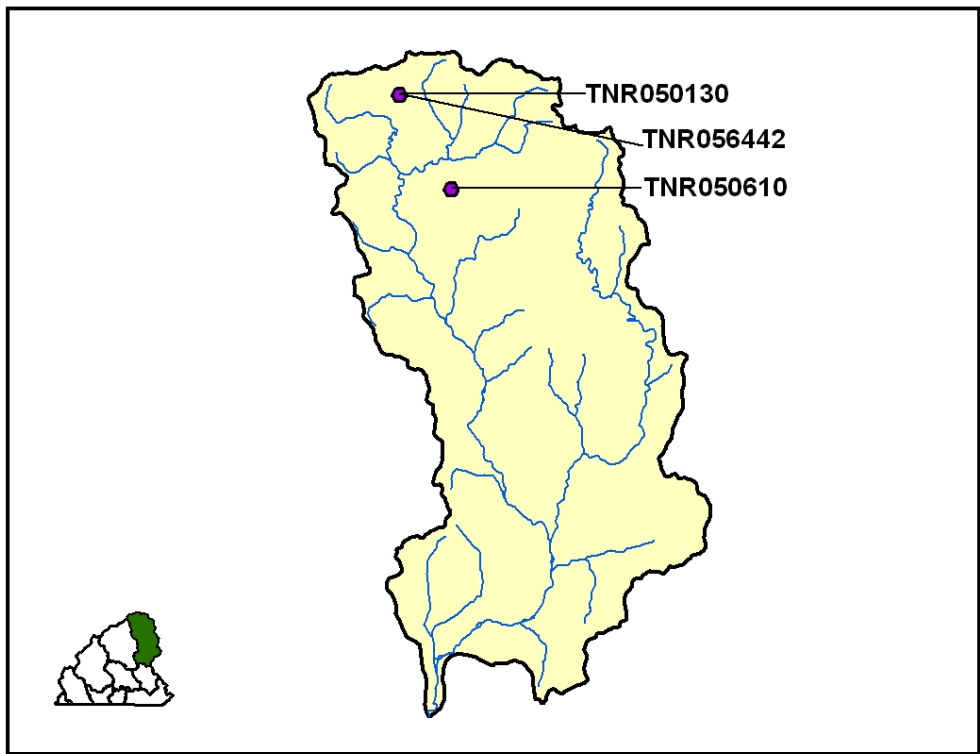


Figure 4-40. Location of TMS (Tennessee Multi Sector Permit) Sites in Subwatershed 060300010202. More information is provided in Appendix IV.

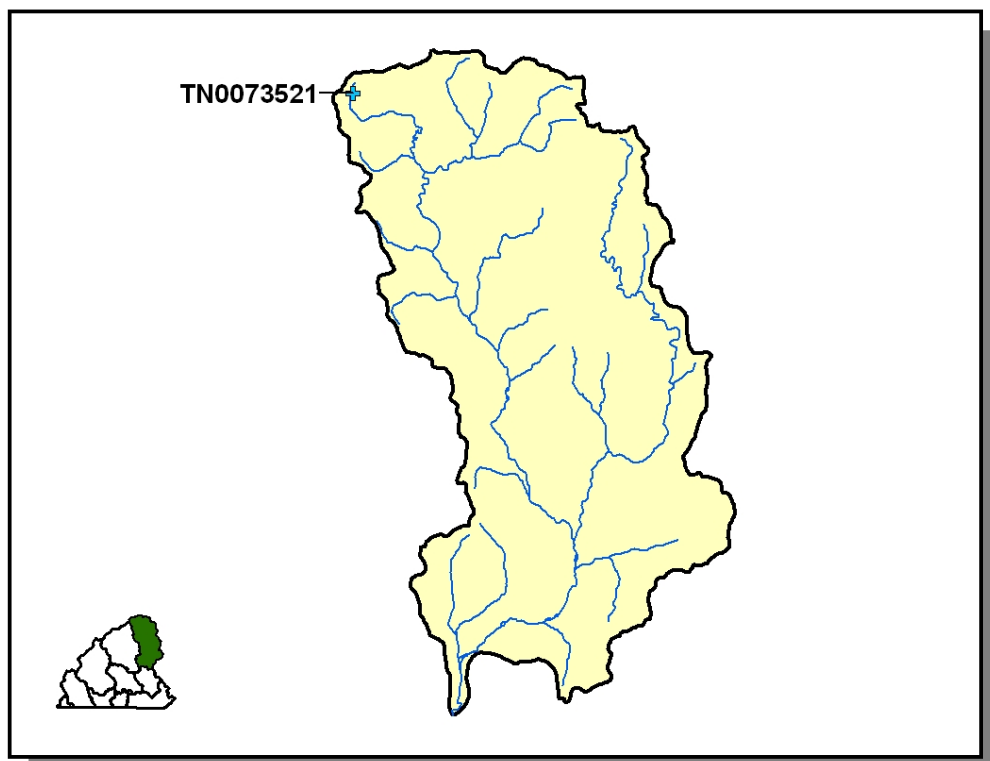


Figure 4-41. Location of Active WTP Facilities in Subwatershed 060300010202. More information, including the names of facilities, is provided in Appendix IV.

4.2.D.iv. Nonpoint Source Contributions.

LIVESTOCK COUNTS						
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
Grundy	3,276	7,673	466	68,155	1,761	
Marion	4,424	8,939	311	246	279	

Table 4-21. Summary of Livestock Count Estimates by County. According to the 1997 Census of Agriculture (<http://www.agcensus.usda.gov/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Grundy	174.5	165.9	5.6	17.7

Table 4-22. Forest Acreage and Annual Removal Rates (1987-1994) by County.

CROPS	TONS/ACRE/YEAR
Other Vegetable and Truck Crop	7.28
Soybeans (Row Crops)	4.59
Corn (Row Crops)	3.99
Other (Horticultural)	1.52
Grass (Pastureland)	0.62
Grass (Hayland)	0.39
Grass Forbs Legumes Mixed (Pastureland)	0.31
Farmsteads and Ranch Headquarters	0.22
Legume Grass (Hayland)	0.19

Table 4-23. Annual Estimated Total Soil Loss in Subwatershed 060300010202.

4.2.E. 060300010203 (Battle Creek, Lower).

4.2.E.i. General Description.

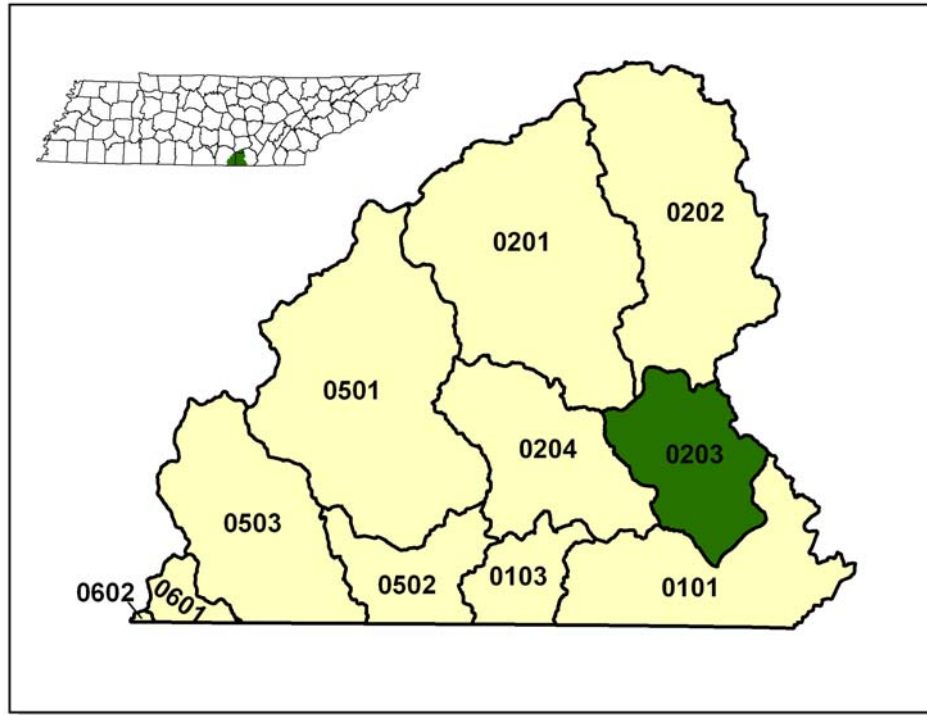


Figure 4-42. Location of Subwatershed 060300010203. All Guntersville Lake HUC-12 subwatershed boundaries in Tennessee are shown for reference.

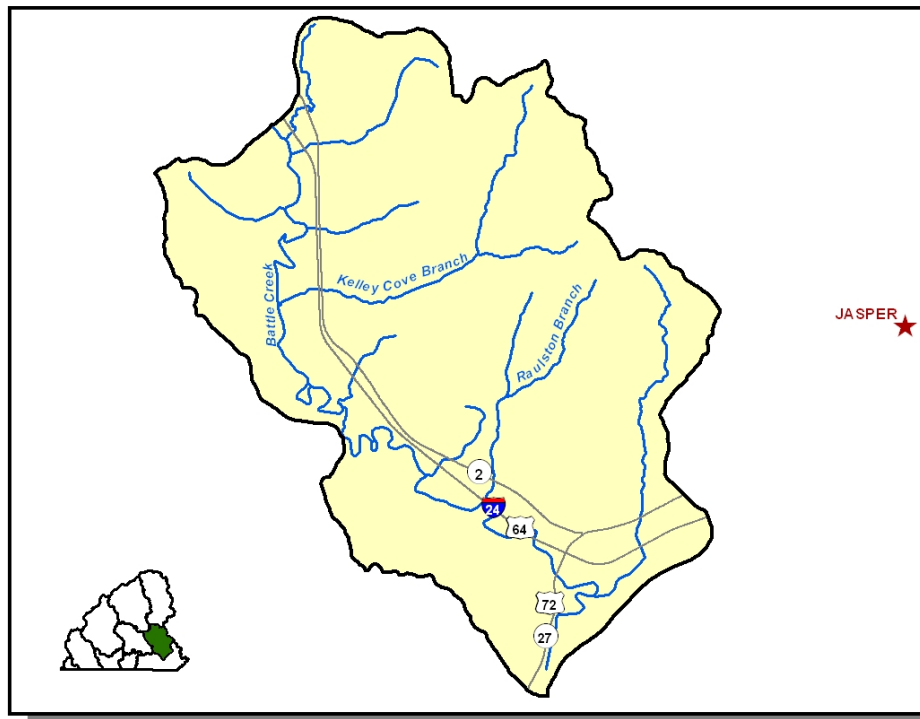


Figure 4-43. Locational Details of Subwatershed 060300010203.

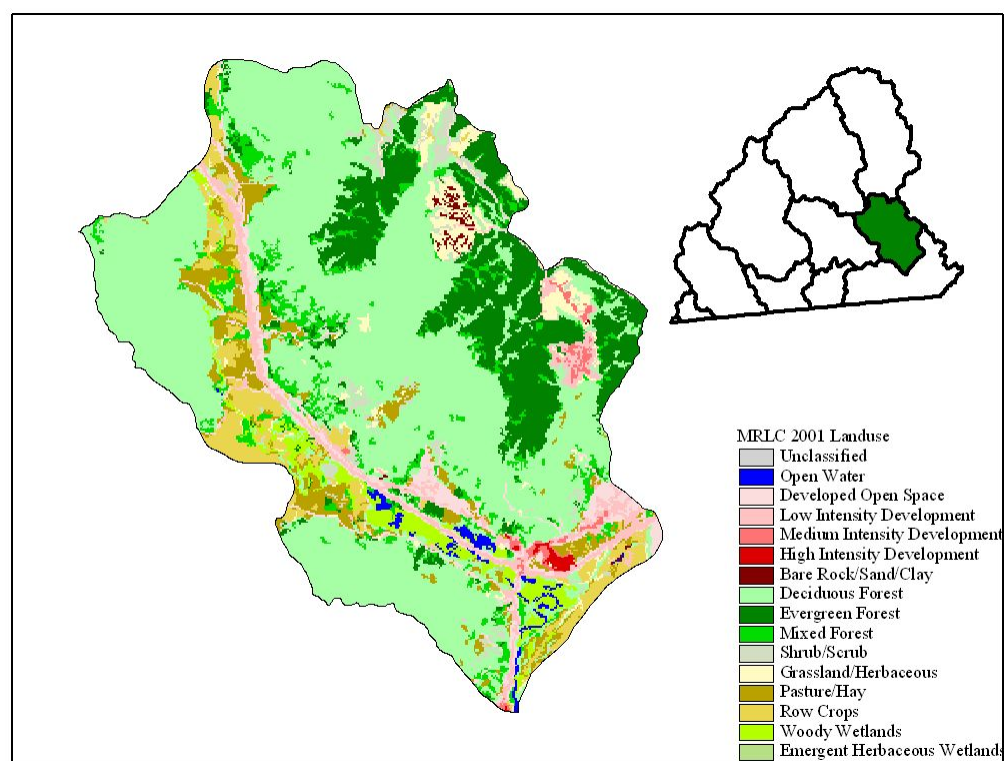


Figure 4-44. Illustration of Land Use Distribution in Subwatershed 060300010203.

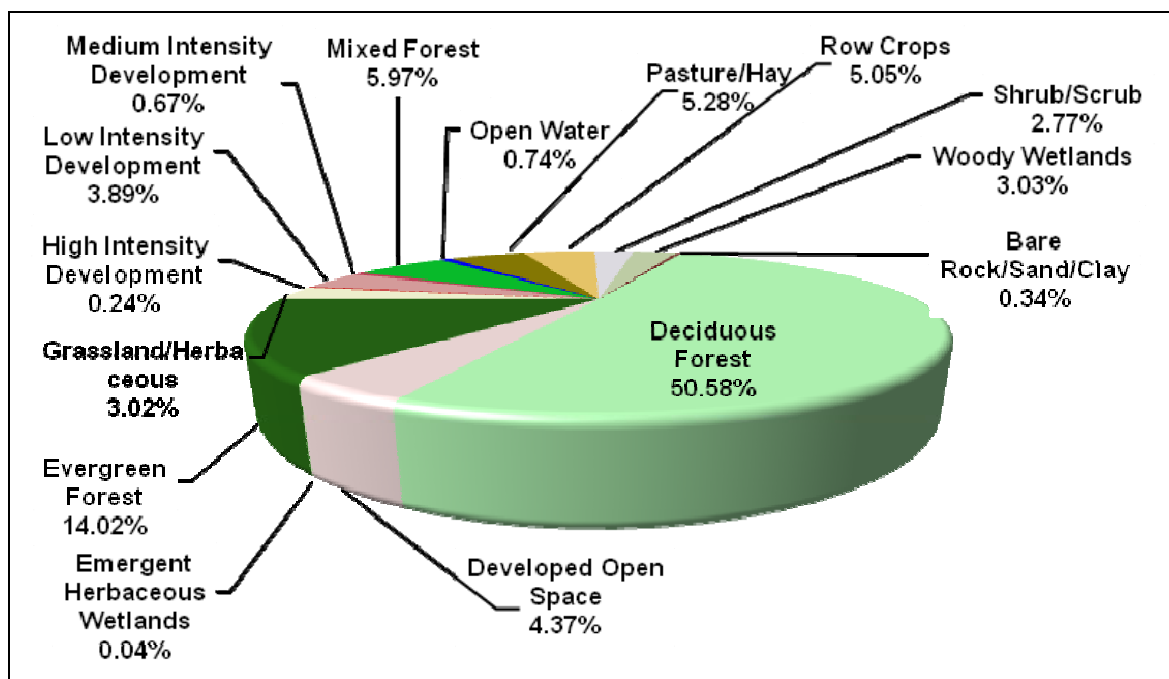


Figure 4-45. Land Use Distribution in Subwatershed 060300010203. More information is provided in Appendix IV.

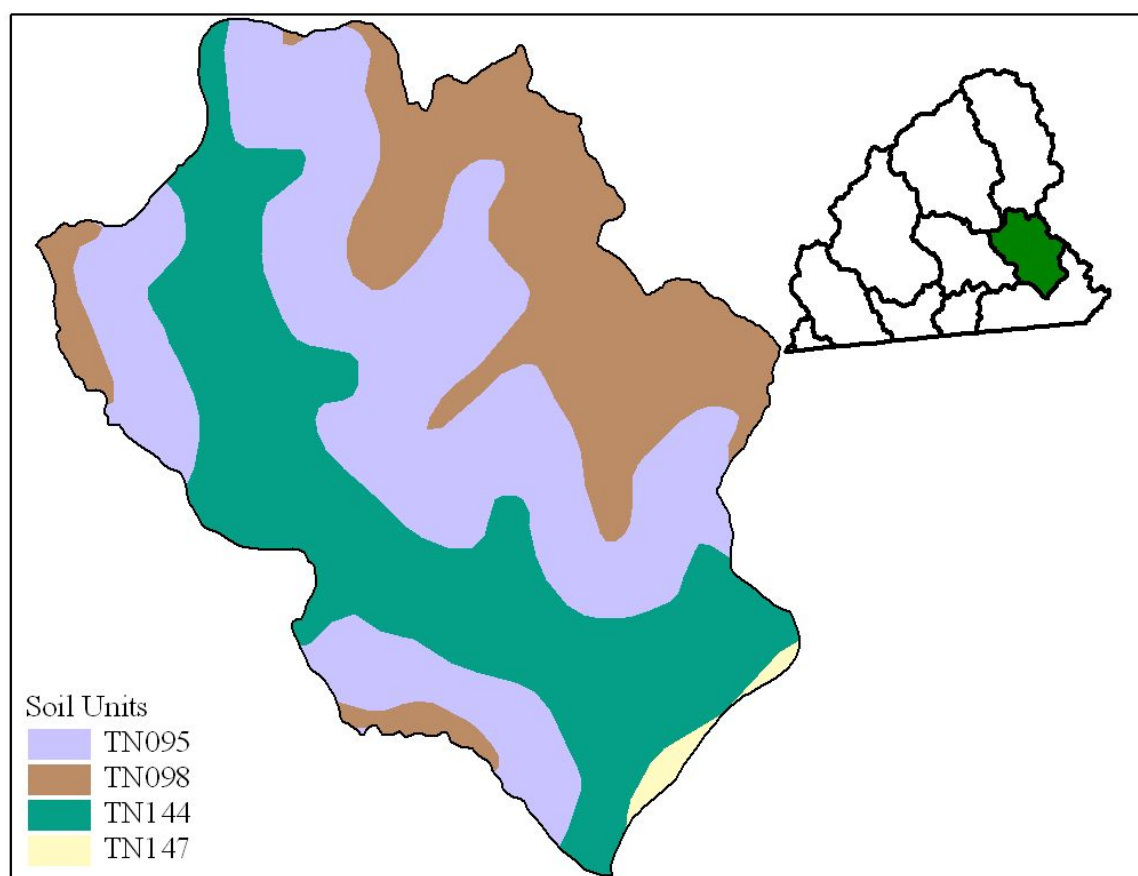


Figure 4-46. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060300010203.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN095	0.00	B	2.35	5.12	Loam	0.31
TN098	1.00	C	3.98	4.82	Loam	0.32
TN144	0.00	B	2.43	5.43	Loam	0.31
TN147	41.00	C	1.30	5.95	Silty Loam	0.38

Table 4-24. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060300010203. The definition of "Hydrologic Group" is provided in Appendix IV.

County	COUNTY POPULATION			% of County in Watershed	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Marion	24,860	26,674	27,776	4.69	1,166	1,251	1,303	11.7

Table 4-25. Population Estimates in Subwatershed 060300010203.

			NUMBER OF HOUSING UNITS			
Populated Place	County	Population	Total	Public Sewer	Septic Tank	Other
Kimball	Marion	1,243	507	54	448	5
South Pittsburg	Marion	3,295	1,444	1,278	153	13
Total		4,538	1,951	1,332	601	18

Table 4-26. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 060300010203.

4.2.E.ii. USGS Gaging Stations and STORET Sites.

There are no USGS continuous record gaging stations located in subwatershed 060300010203.

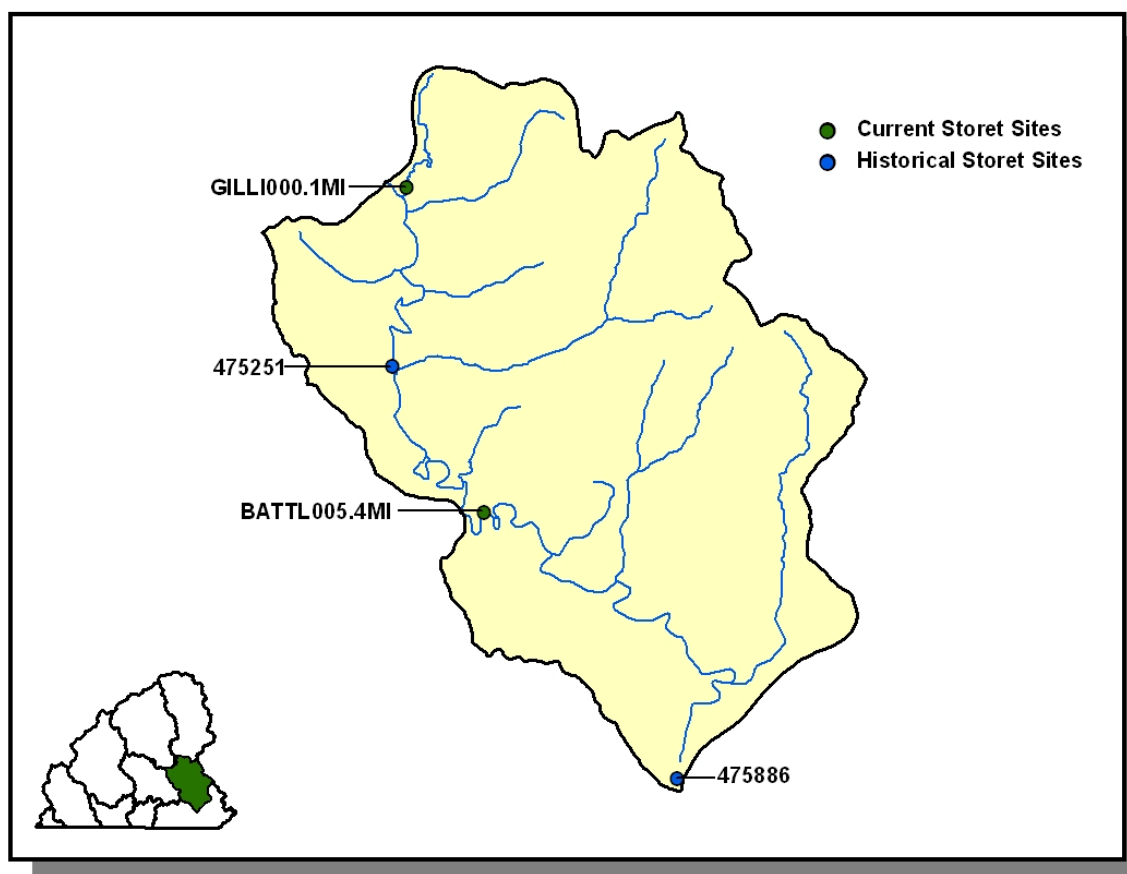


Figure 4-47. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 060300010203. More information, including site names and locations, is provided in Appendix IV.

4.2.E.iii. Permitted Activities.

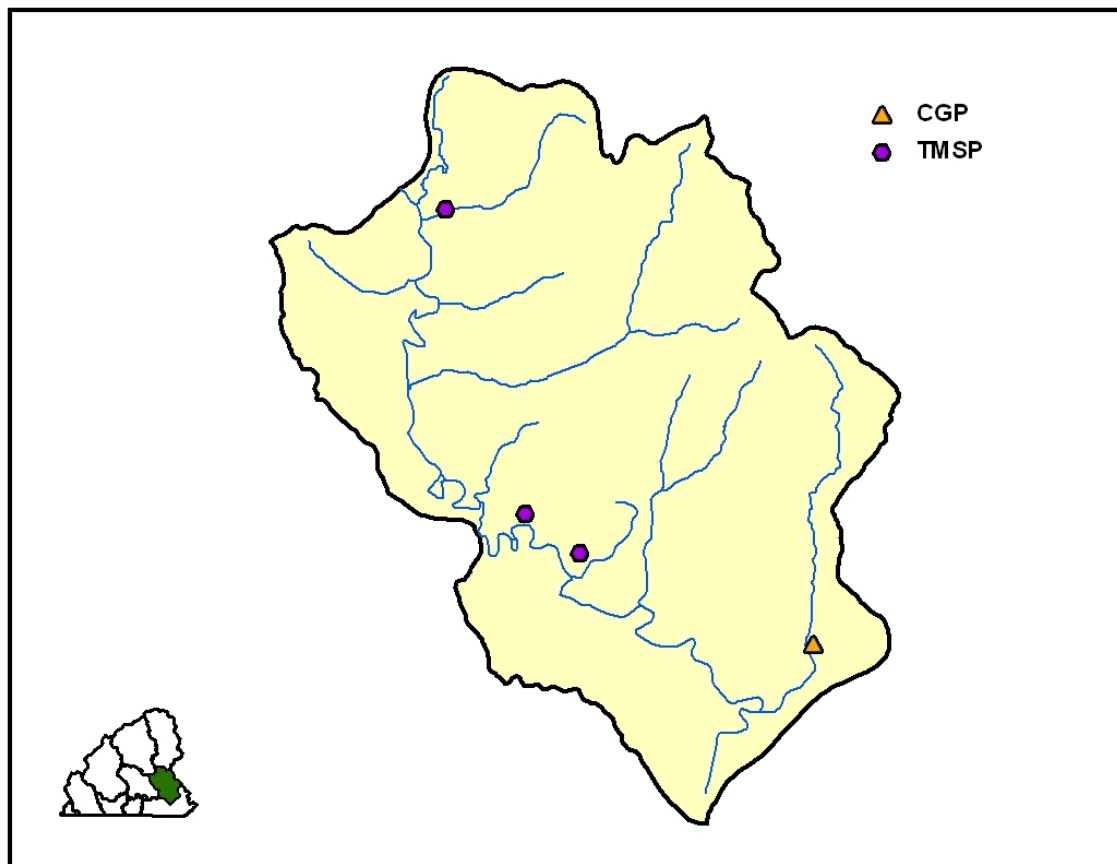


Figure 4-48. Location of Permits Issued in Subwatershed 060300010203. More information, including the names of facilities, is provided in Appendix IV.

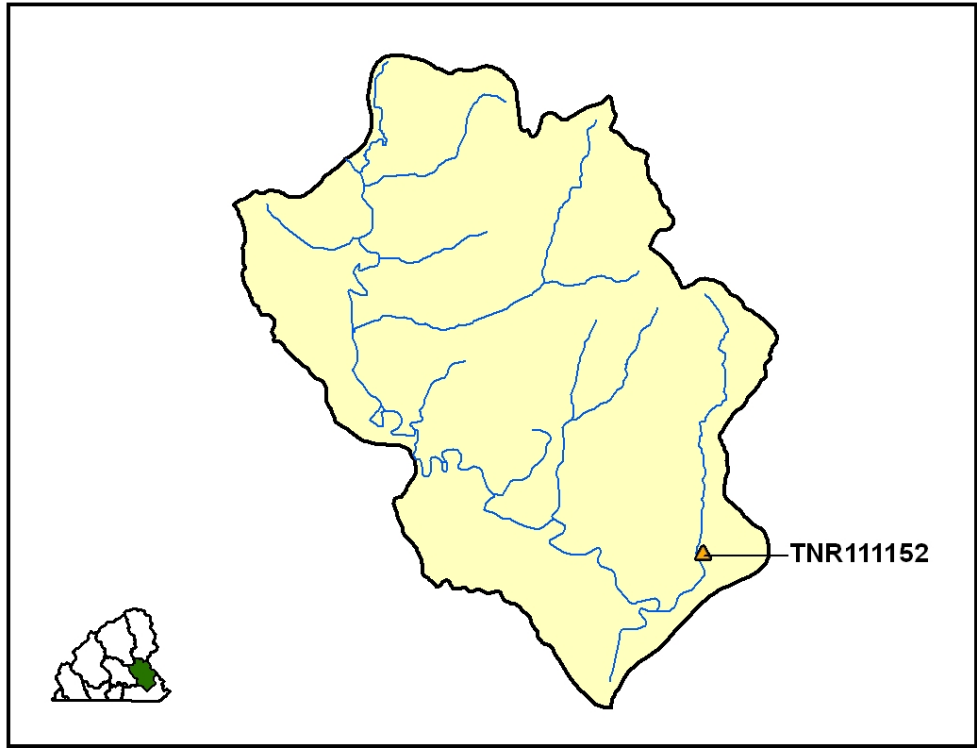


Figure 4-49. Location of CGP (Construction General Permit) Sites in Subwatershed 060300010203. More information is provided in Appendix IV.

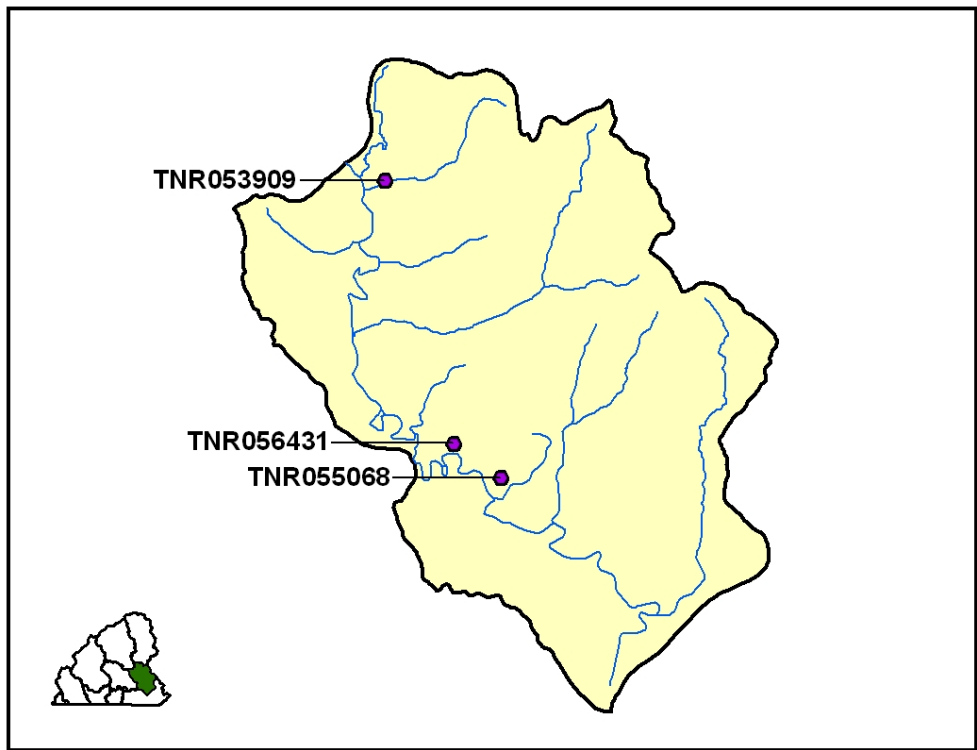


Figure 4-50. Location of TMSP (Tennessee Multi Sector Permit) Sites in Subwatershed 060300010203. More information is provided in Appendix IV.

4.2.E.iv. Nonpoint Source Contributions.

LIVESTOCK COUNTS						
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
Marion	4,424	8,939	311	246	279	

Table 4-27. Summary of Livestock Count Estimates by County. According to the 1997 Census of Agriculture (<http://www.agcensus.usda.gov/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

CROPS	TONS/ACRE/YEAR
Other Vegetable and Truck Crop	7.28
Soybeans (Row Crops)	4.56
Corn (Row Crops)	3.55
Grass (Pastureland)	0.62
Grass Forbs Legumes Mixed (Pastureland)	0.29
Other (Horticultural)	0.29
Farmsteads and Ranch Headquarters	0.19

Table 4-28. Annual Estimated Total Soil Loss in Subwatershed 060300010203.

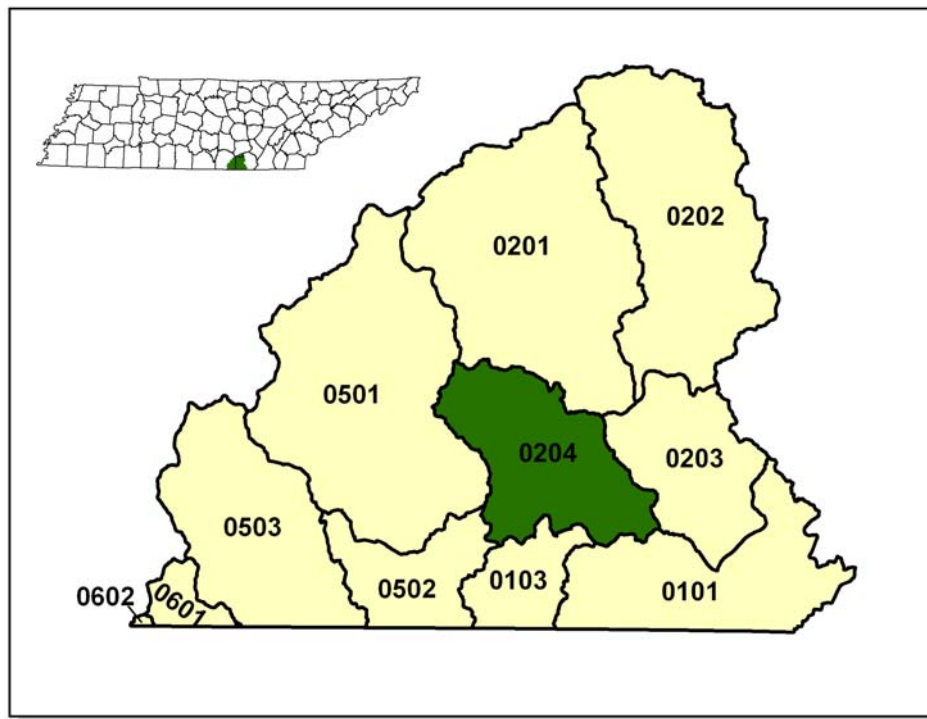
4.2.F. 060300010204 (Sweden Cove).**4.2.F.i. General Description.**

Figure 4-51. Location of Subwatershed 060300010204. All Guntersville Lake HUC-12 subwatershed boundaries in Tennessee are shown for reference.

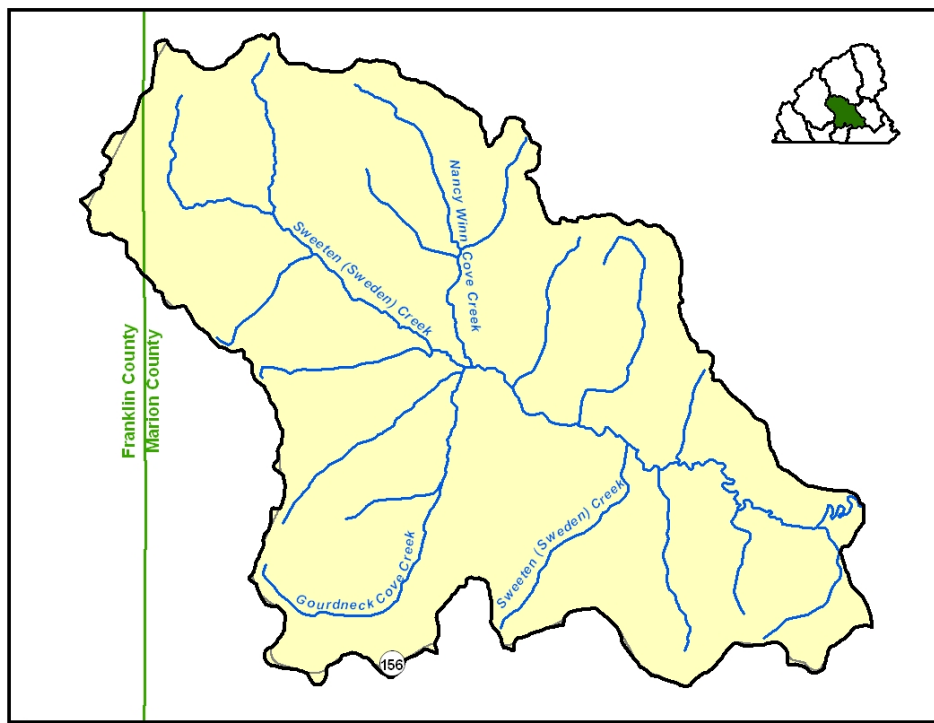


Figure 4-52. Locational Details of Subwatershed 060300010204.

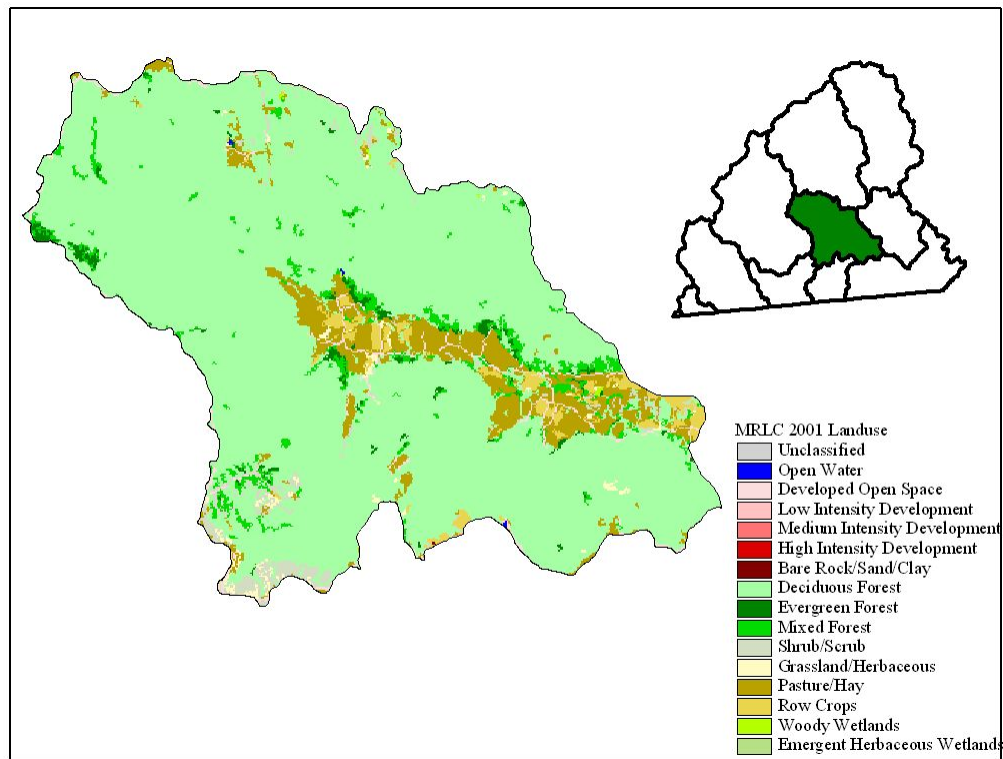


Figure 4-53. Illustration of Land Use Distribution in Subwatershed 060300010204.

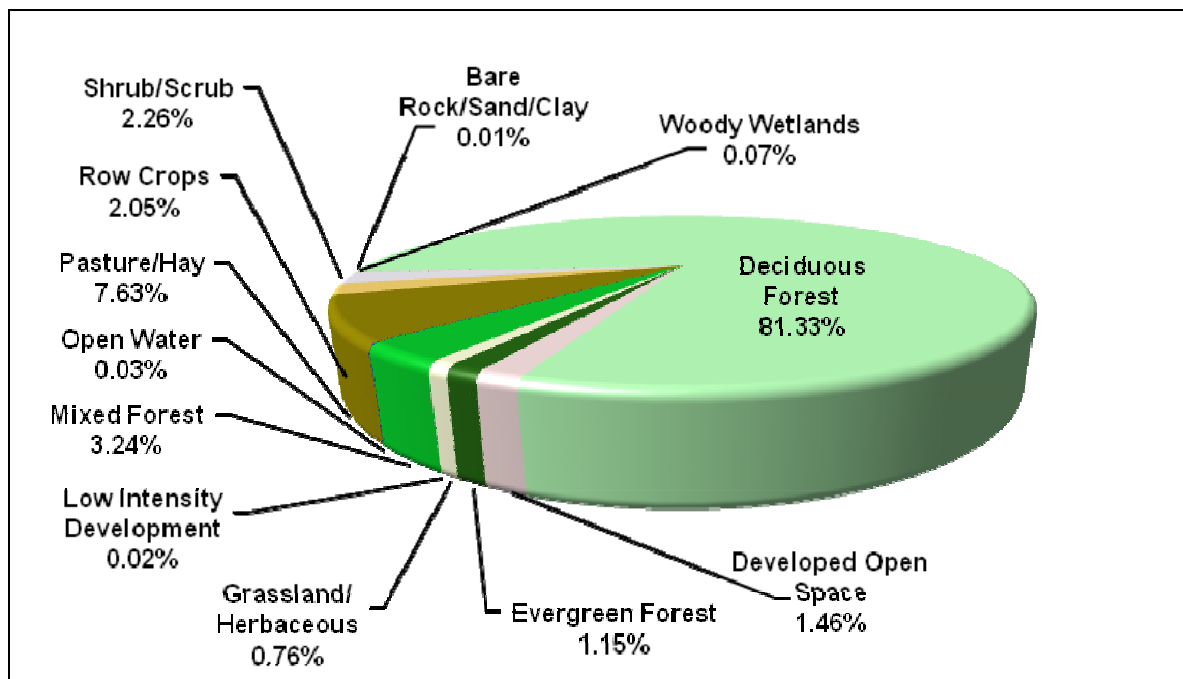


Figure 4-54. Land Use Distribution in Subwatershed 060300010204. More information is provided in Appendix IV.

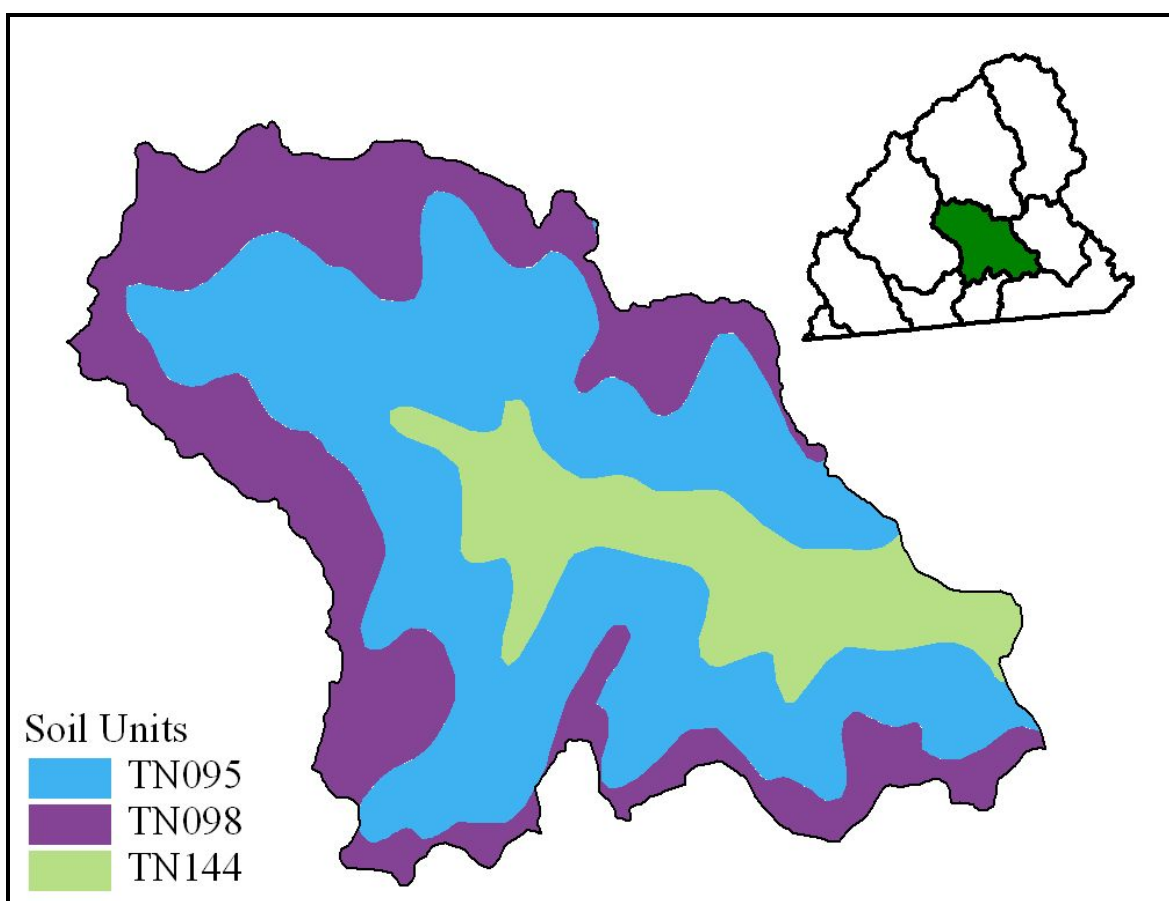


Figure 4-55. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060300010204.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN095	0.00	B	2.35	5.12	Loam	0.31
TN098	1.00	C	3.98	4.82	Loam	0.32
TN144	0.00	B	2.43	5.43	Loam	0.31

Table 4-29. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060300010204. The definition of "Hydrologic Group" is provided in Appendix IV.

	COUNTY POPULATION				ESTIMATED POPULATION IN WATERSHED			
County	1990	1997	2000	% of County in Watershed	1990	1997	2000	% Change (1990-2000)
Franklin	34,725	37,152	39,270	0.04	12	13	14	16.70
Marion	24,860	26,674	27,776	5.90	1,466	1,572	1,637	11.70
Totals	59,585	63,826	67,046		1,478	1,585	1,651	11.70

Table 4-30. Population Estimates in Subwatershed 060300010204.

4.2.F.ii. USGS Gaging Stations and STORET Sites.

There are no USGS continuous record gaging stations located in subwatershed 060300010204.

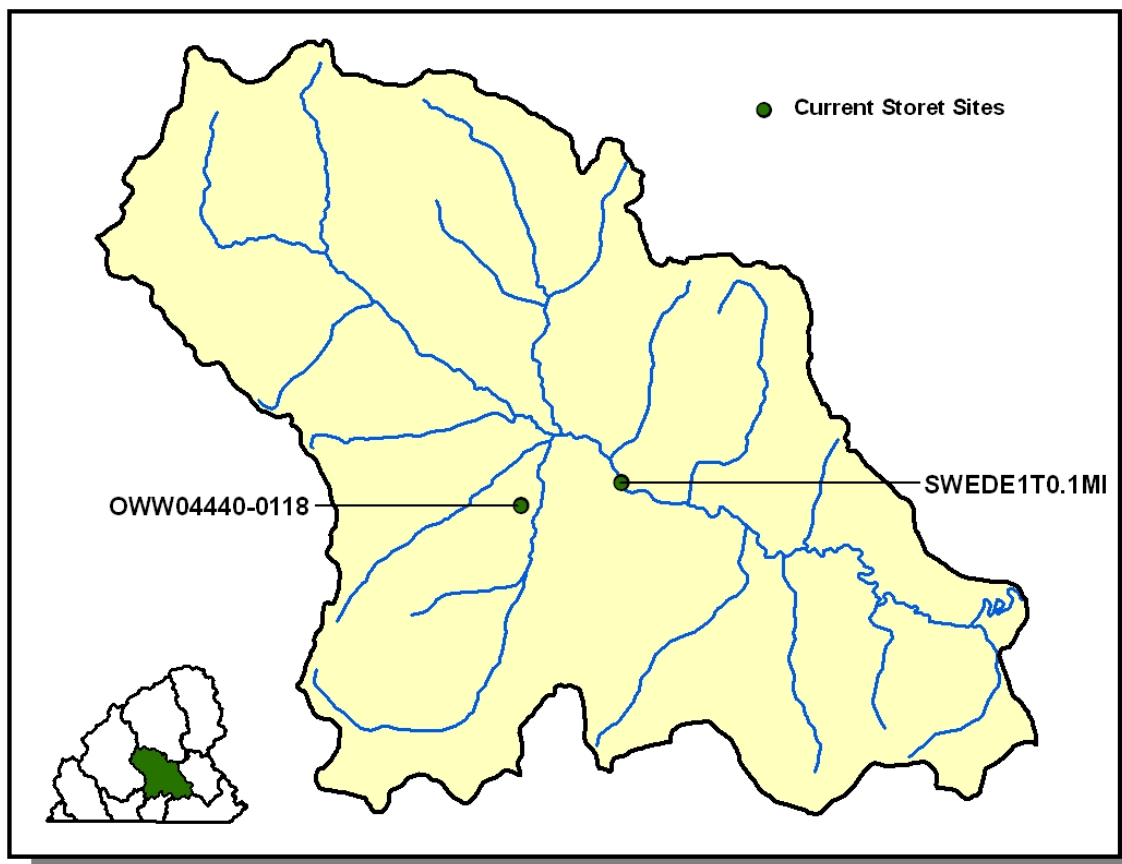


Figure 4-56. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 060300010204. More information, including site names and locations, is provided in Appendix IV.

4.2.F.iii. Permitted Activities.

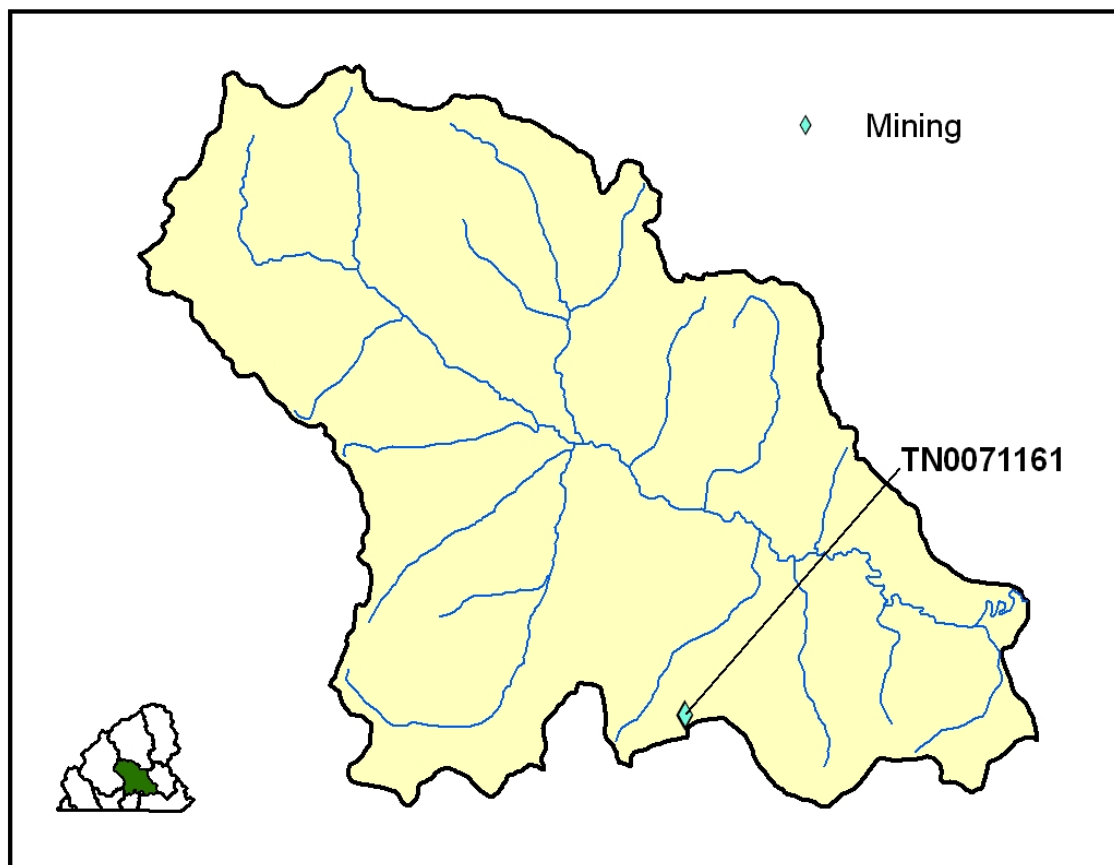


Figure 4-57. Location of Permits Issued in Subwatershed 060300010204. More information, including the names of facilities, is provided in Appendix IV.

4.2.F.iv. Nonpoint Source Contributions.

LIVESTOCK COUNTS						
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
Franklin	13,877	30,702	2,999	28	19,333	105
Marion	4,424	8,939	311	246	279	

Table 4-31. Summary of Livestock Count Estimates by County. According to the 1997 Census of Agriculture (<http://www.agcensus.usda.gov/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Franklin	183.4	183.0	6.0	28.7

Table 4-32. Forest Acreage and Annual Removal Rates (1987-1994) by County.

CROPS	TONS/ACRE/YEAR
Other Vegetable and Truck Crop	7.28
All Other Close Grown Cropland	5.82
Wheat (Close Grown Cropland)	5.55
Soybeans (Row Crops)	4.56
Corn (Row Crops)	3.56
Other Cropland not Planted	2.04
Legume (Hayland)	1.64
Grass (Pastureland)	0.62
Other (Horticultural)	0.30
Grass Forbs Legumes Mixed (Pastureland)	0.29
Farmsteads and Ranch Headquarters	0.19
Conservation Reserve Program Land	0.09

Table 4-33. Annual Estimated Total Soil Loss in Subwatershed 060300010204.

4.2.G. 060300010501 (Crow Creek, Lower).

4.2.G.i. General Description.

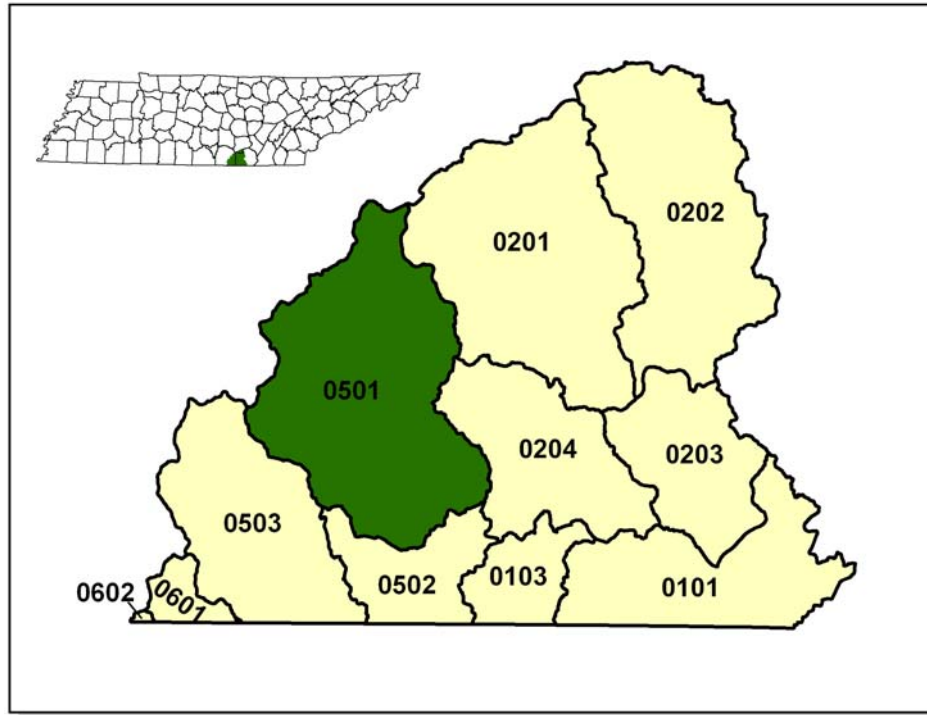


Figure 4-58. Location of Subwatershed 060300010501. All Guntersville Lake HUC-12 subwatershed boundaries in Tennessee are shown for reference.

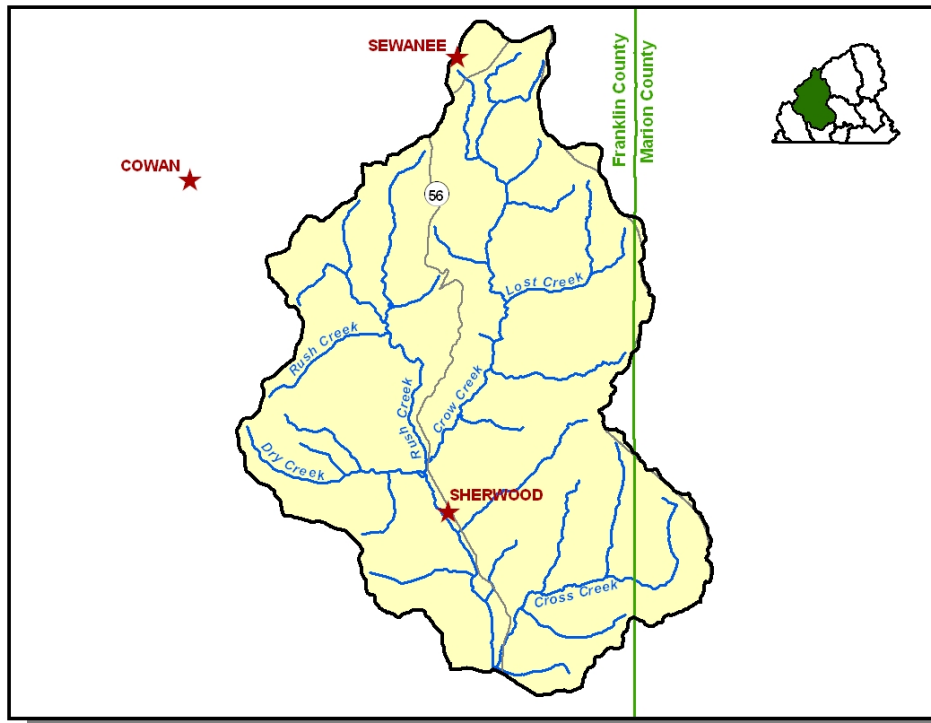


Figure 4-59. Locational Details of Subwatershed 060300010501.

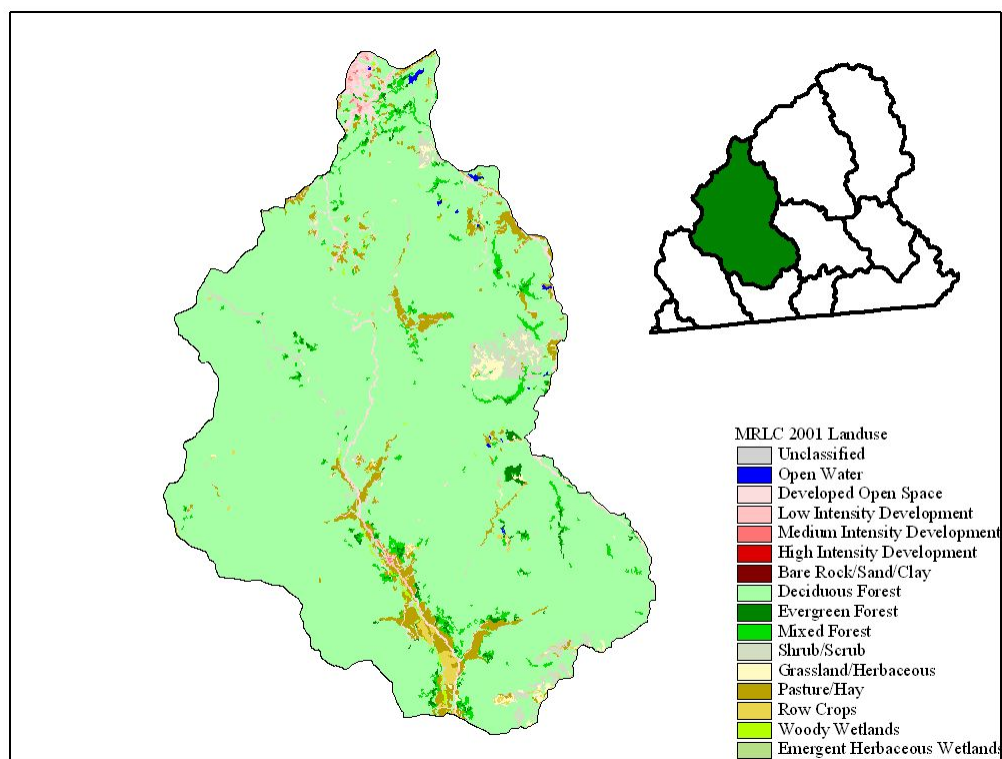


Figure 4-60. Illustration of Land Use Distribution in Subwatershed 060300010501.

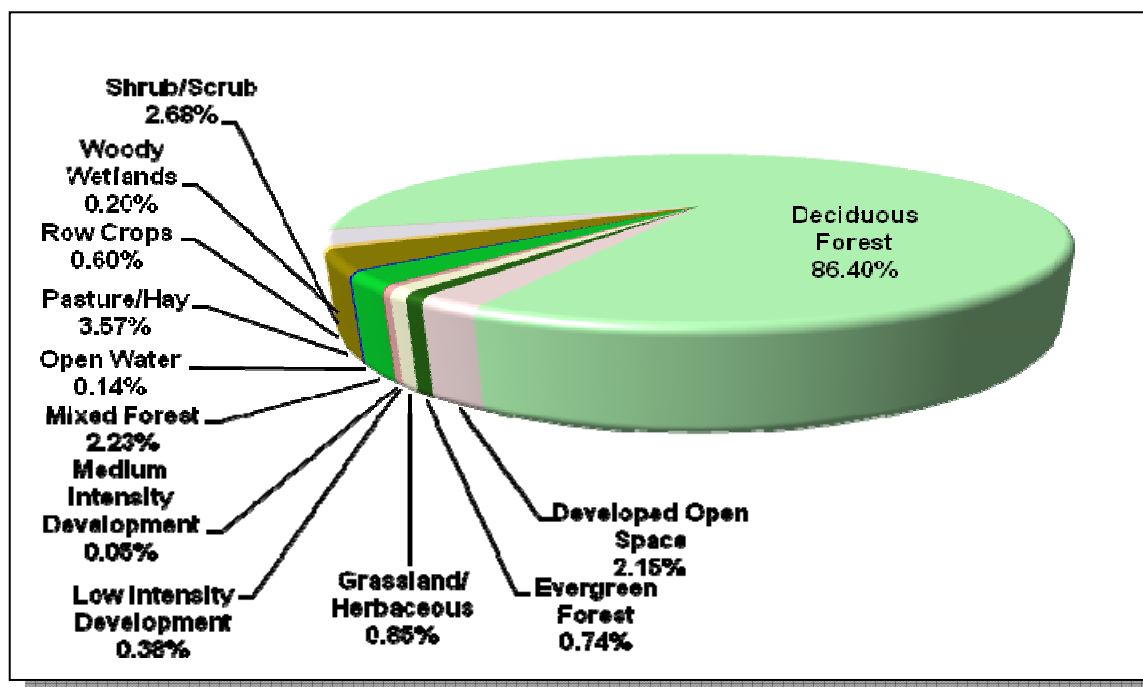


Figure 4-61. Land Use Distribution in Subwatershed 060300010501. More information is provided in Appendix IV.

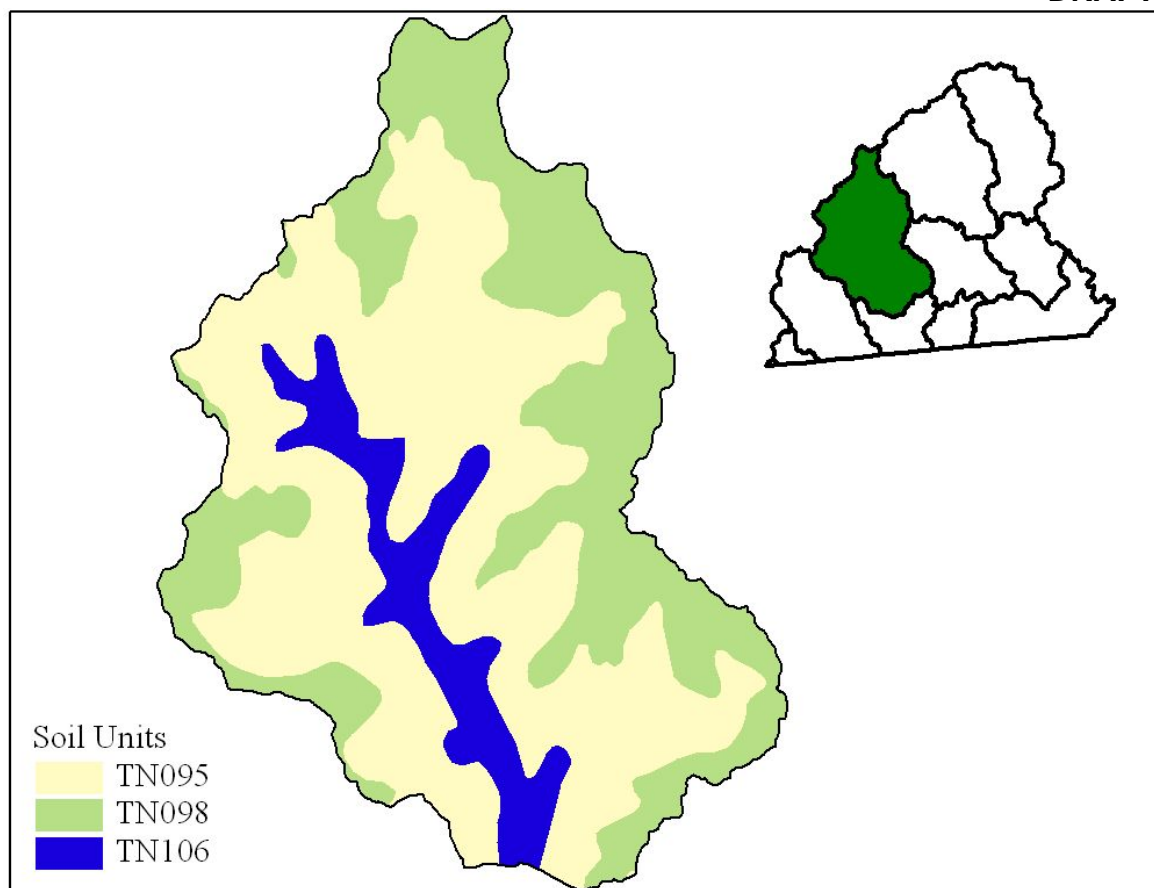


Figure 4-62. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060300010501.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN095	0.00	B	2.35	5.12	Loam	0.31
TN098	1.00	C	3.98	4.82	Loam	0.32
TN106	10.00	C	1.19	5.24	Loam	0.35

Table 4-34. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060300010501. The definition of "Hydrologic Group" is provided in Appendix IV.

	COUNTY POPULATION				ESTIMATED POPULATION IN WATERSHED			
County	1990	1997	2000	% of County in Watershed	1990	1997	2000	% Change (1990-2000)
Franklin	34,725	37,152	39,270	10.35	3,593	3,844	4,063	13.10
Marion	24,860	26,674	27,776	1.08	267	287	299	12.00
Totals	59,585	63,826	67,046		3,860	4,131	4,362	13.00

Table 4-35. Population Estimates in Subwatershed 060300010501.

4.2.G.ii. USGS Gaging Stations and STORET Sites.

There are no USGS continuous record gaging stations located in subwatershed 060300010501.

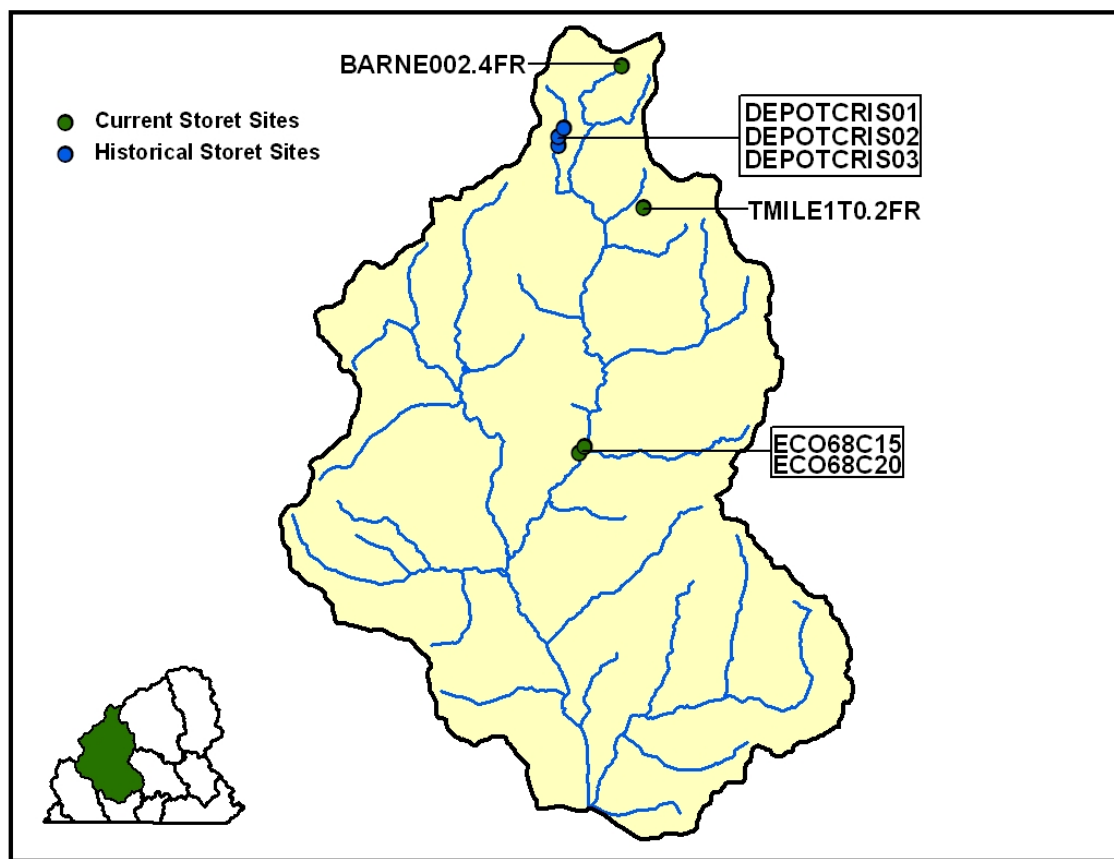


Figure 4-63. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 060300010501. More information, including site names and locations, is provided in Appendix IV.

4.2.G.iii. Permitted Activities.

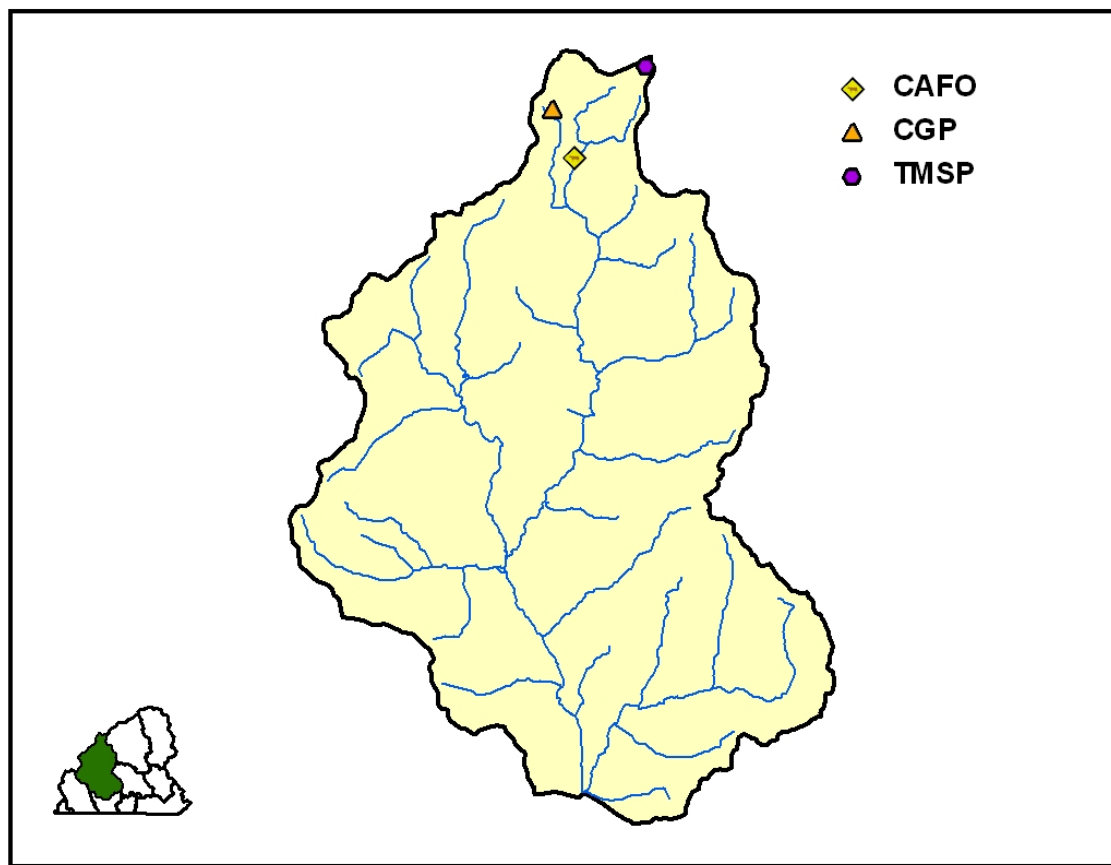


Figure 4-64. Location of Permits Issued in Subwatershed 060300010501. More information, including the names of facilities, is provided in Appendix IV.

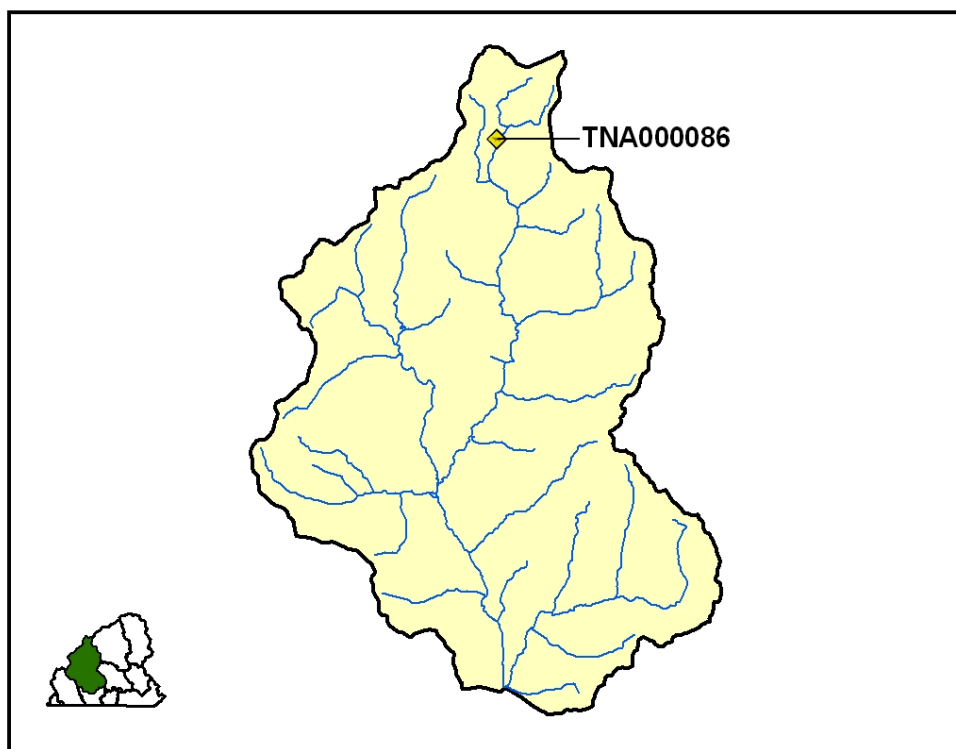


Figure 4-65. Location of CAFO (Concentrated Animal Feed Operation) Permit Sites in Subwatershed 060300010501. More information, including the names of facilities, is provided in Appendix IV.

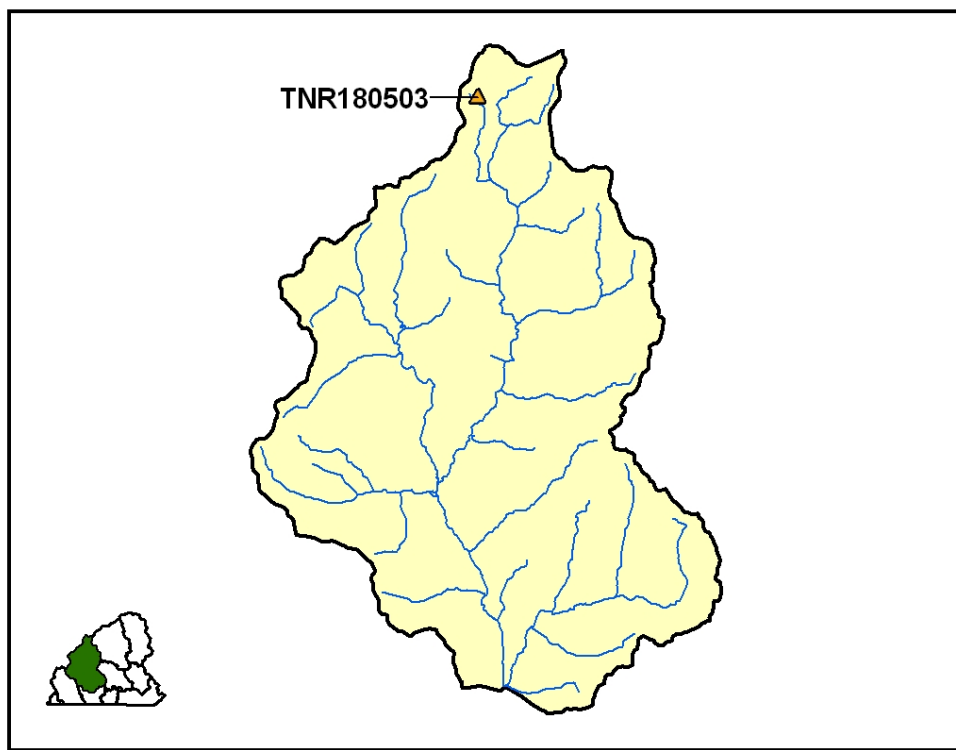


Figure 4-66. Location of CGP (Construction General Permit) Sites in Subwatershed 060300010501. More information is provided in Appendix IV.

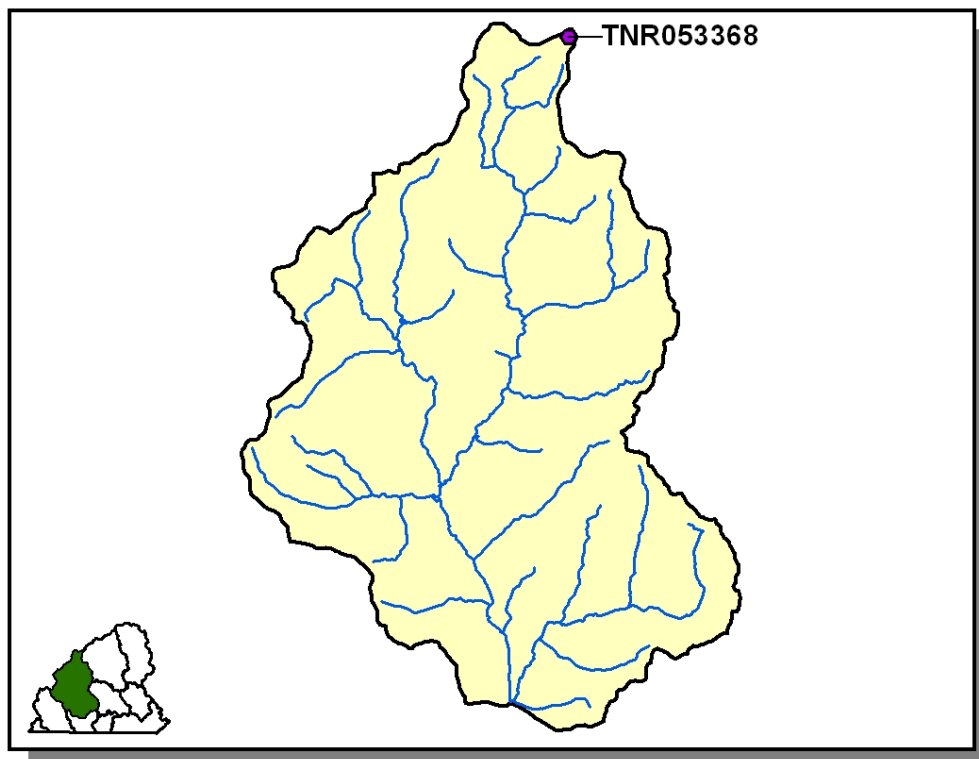


Figure 4-67. Location of TMSPT (Tennessee Multi Sector Permit) Sites in Subwatershed 060300010501. More information is provided in Appendix IV.

4.2.G.iv. Nonpoint Source Contributions.

LIVESTOCK COUNTS						
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
Franklin	13,877	30,702	2,999	28	19,333	105
Marion	4,424	8,939	311	246	279	

Table 4-36. Summary of Livestock Count Estimates by County. According to the 1997 Census of Agriculture (<http://www.agcensus.usda.gov/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Franklin	183.4	183.0	6.0	28.7

Table 4-37. Forest Acreage and Annual Removal Rates (1987-1994) by County.

CROPS	TONS/ACRE/YEAR
Other Vegetable and Truck Crop	7.28
All Other Close Grown Cropland	5.82
Wheat (Close Grown Cropland)	5.55
Corn (Row Crops)	5.40
Soybeans (Row Crops)	3.94
Other Cropland not Planted	2.04
Other (Horticultural)	1.78
Legume (Hayland)	1.64
Grass Forbs Legumes Mixed (Pastureland)	0.50
Grass (Pastureland)	0.35
Farmsteads and Ranch Headquarters	0.13
Conservation Reserve Program Land	0.09
Other Vegetable and Truck Crop	7.28
All Other Close Grown Cropland	5.82

Table 4-38. Annual Estimated Total Soil Loss in Subwatershed 060300010501.

4.2.H. 060300010502 (Crow Creek, Upper).

4.2.H.i. General Description.

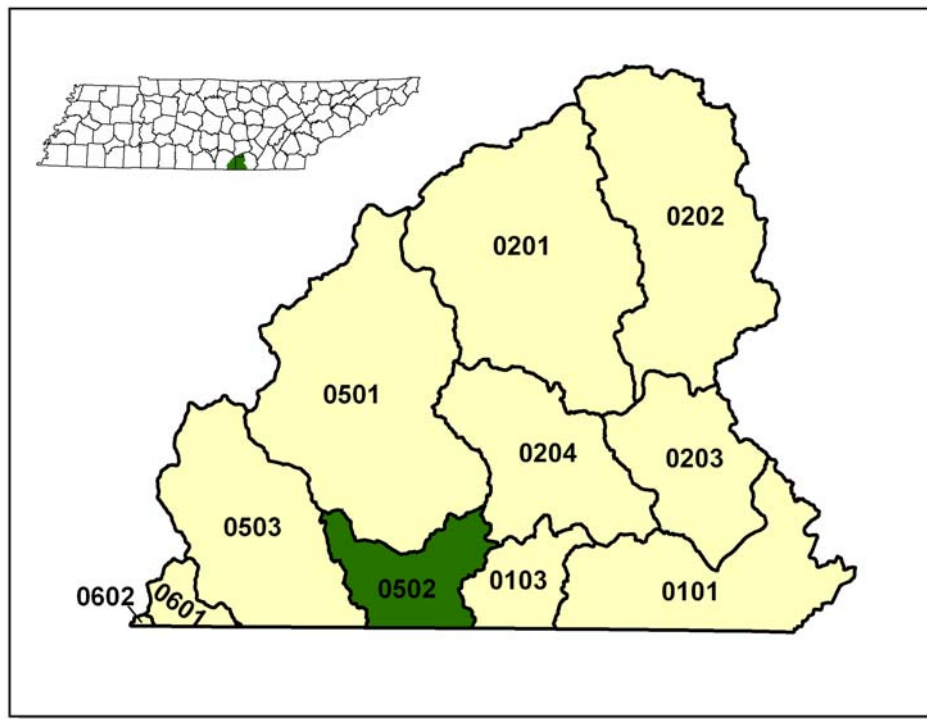


Figure 4-68. Location of Subwatershed 060300010502. All Guntersville Lake HUC-12 subwatershed boundaries in Tennessee are shown for reference.

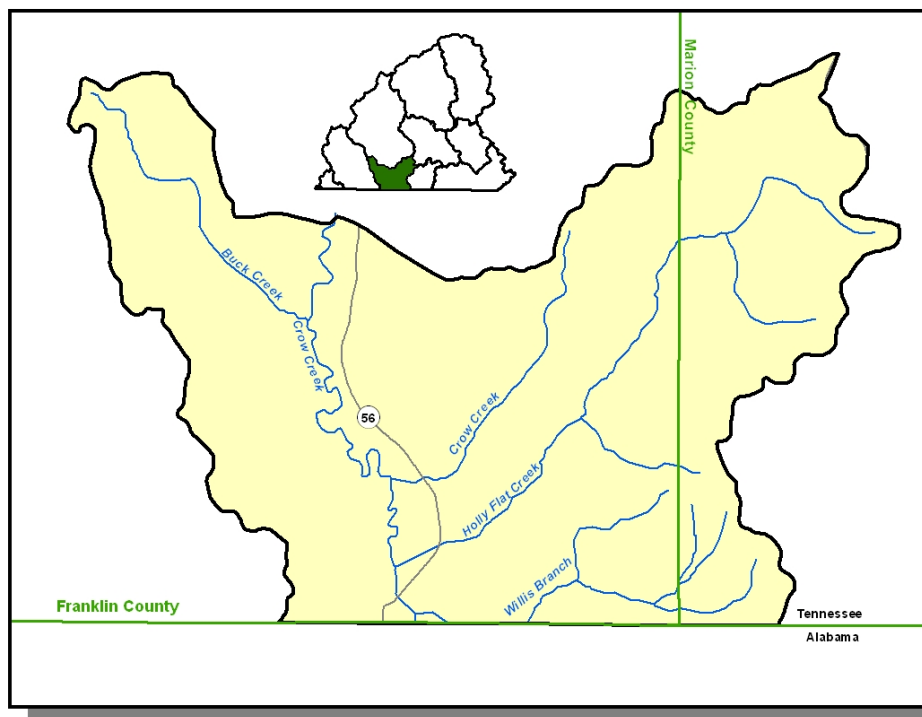


Figure 4-69. Locational Details of Subwatershed 060300010502.

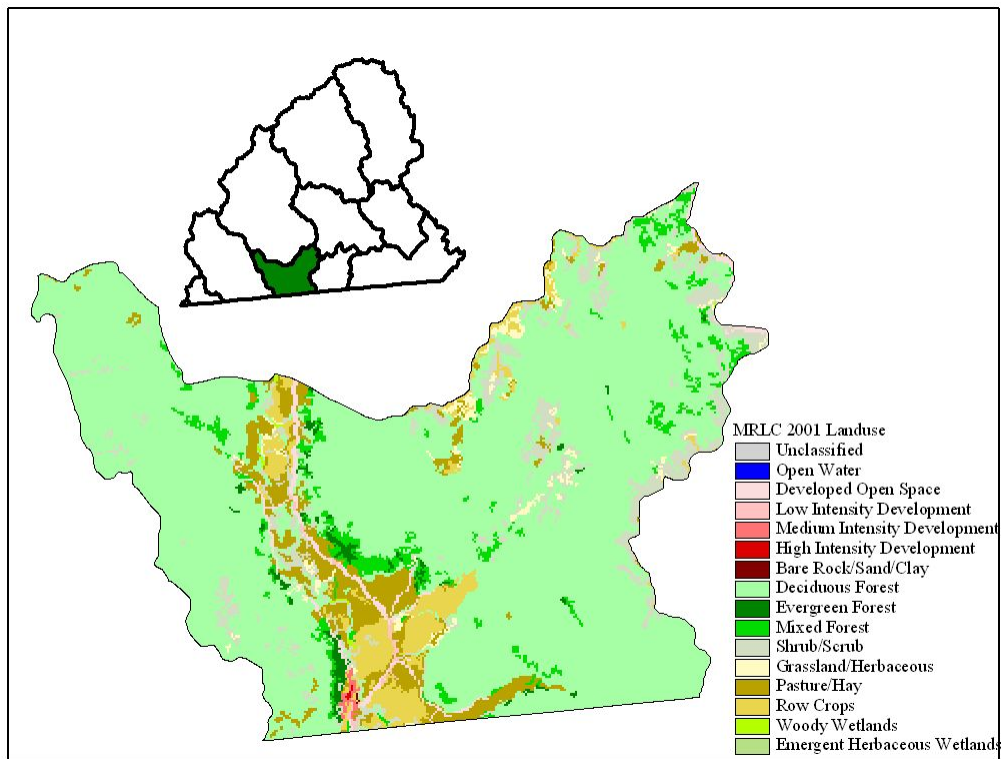


Figure 4-70. Illustration of Land Use Distribution in Subwatershed 060300010502.

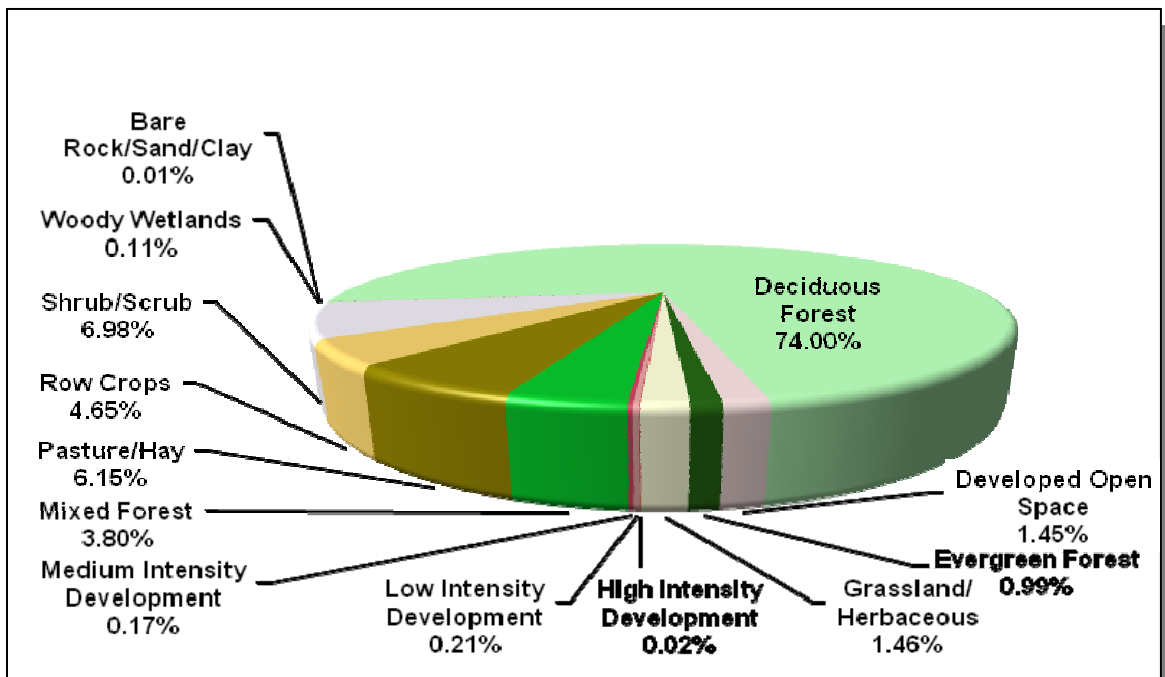


Figure 4-71. Land Use Distribution in Subwatershed 060300010502. More information is provided in Appendix IV.

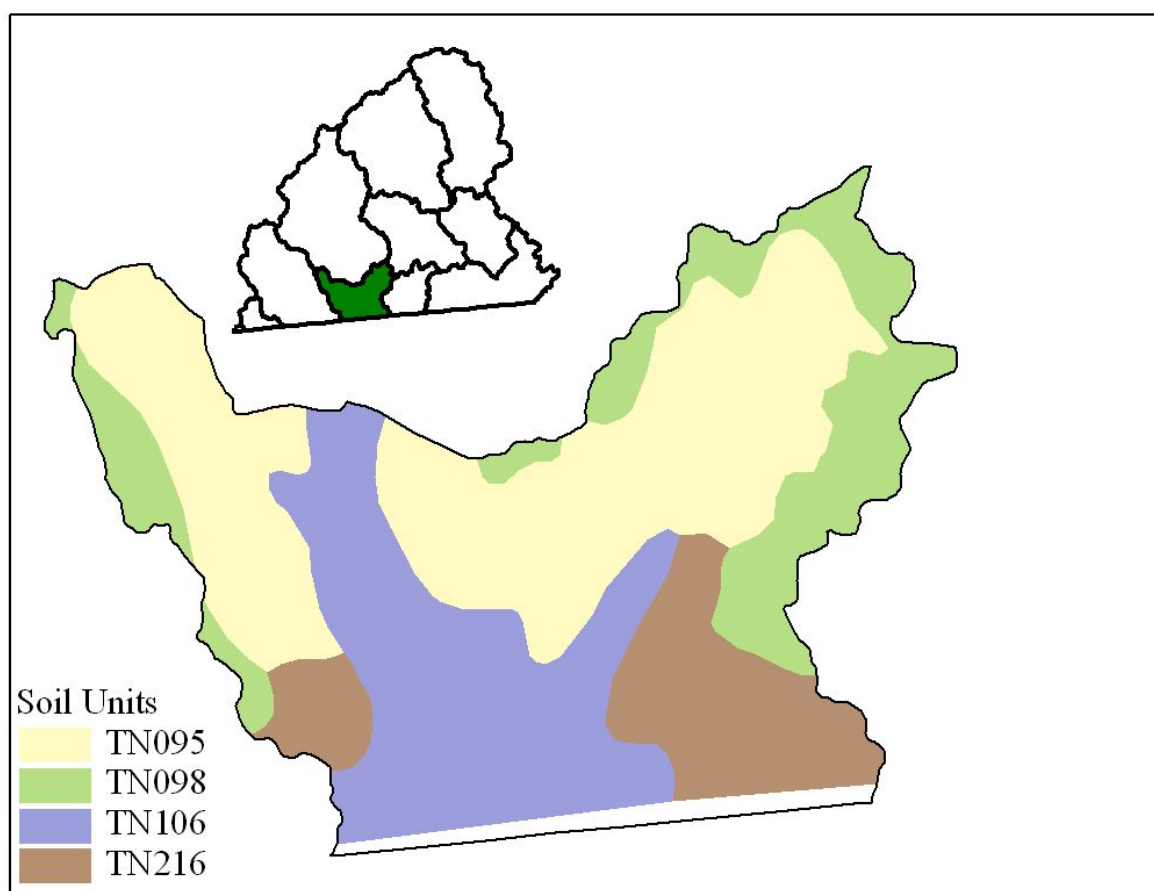


Figure 4-72. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060300010502.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN095	0.00	B	2.35	5.12	Loam	0.31
TN098	1.00	C	3.98	4.82	Loam	0.32
TN106	10.00	C	1.19	5.24	Loam	0.35
TN216	0.00	C	2.51	4.59	Loam	0.25

Table 4-39. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060300010502. The definition of "Hydrologic Group" is provided in Appendix IV.

	COUNTY POPULATION				ESTIMATED POPULATION IN WATERSHED			
County	1990	1997	2000	% of County in Watershed	1990	1997	2000	% Change (1990-2000)
Franklin	34,725	37,152	39,270	1.86	645	690	729	13.00
Marion	24,860	26,674	27,776	0.94	233	250	261	12.00
Totals	59,585	63,826	67,046		878	940	990	12.80

Table 4-40. Population Estimates in Subwatershed 060300010502.

4.2.H.ii. USGS Gaging Stations and STORET Sites.

There are no USGS continuous record gaging stations or STORET sites located in subwatershed 060300010502.

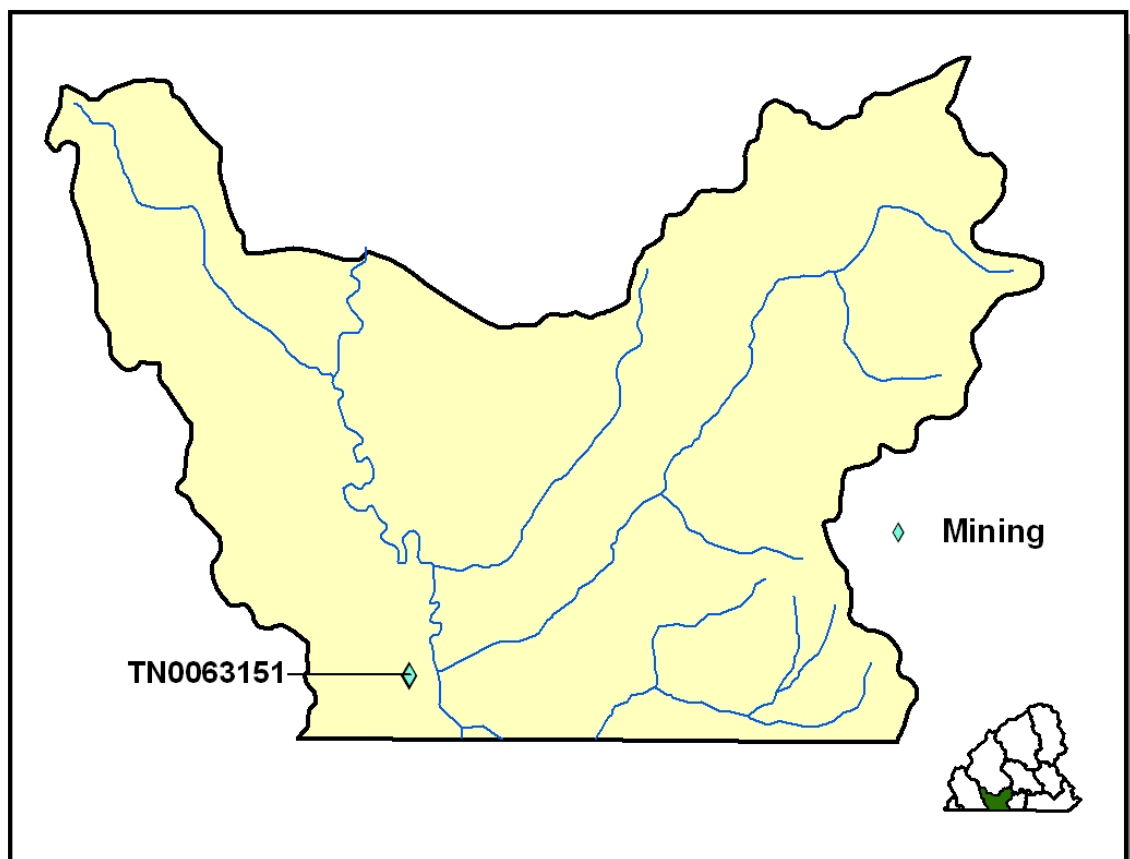
4.2.H.iii. Permitted Activities.

Figure 4-73. Location of Permits Issued in Subwatershed 060300010502. More information, including the names of facilities, is provided in Appendix IV.

4.2.H.iv. Nonpoint Source Contributions.

LIVESTOCK COUNTS						
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
Franklin	13,877	30,702	2,999	28	19,333	105
Marion	4,424	8,939	311	246	279	

Table 4-41. Summary of Livestock Count Estimates by County. According to the 1997 Census of Agriculture (<http://www.agcensus.usda.gov/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Franklin	183.4	183.0	6.0	28.7

Table 4-42. Forest Acreage and Annual Removal Rates (1987-1994) by County.

CROPS	TONS/ACRE/YEAR
Other Vegetable and Truck Crop	7.28
All Other Close Grown Cropland	5.82
Wheat (Close Grown Cropland)	5.55
Corn (Row Crops)	4.93
Soybeans (Row Crops)	4.10
Other Cropland not Planted	2.04
Legume (Hayland)	1.64
Other (Horticultural)	1.40
Grass Forbs Legumes Mixed (Pastureland)	0.45
Grass (Pastureland)	0.42
Farmsteads and Ranch Headquarters	0.15
Conservation Reserve Program Land	0.09

Table 4-43. Annual Estimated Total Soil Loss in Subwatershed 060300010502.

4.2.I. 060300010503 (Little Crow Creek).

4.2.I.i. General Description.

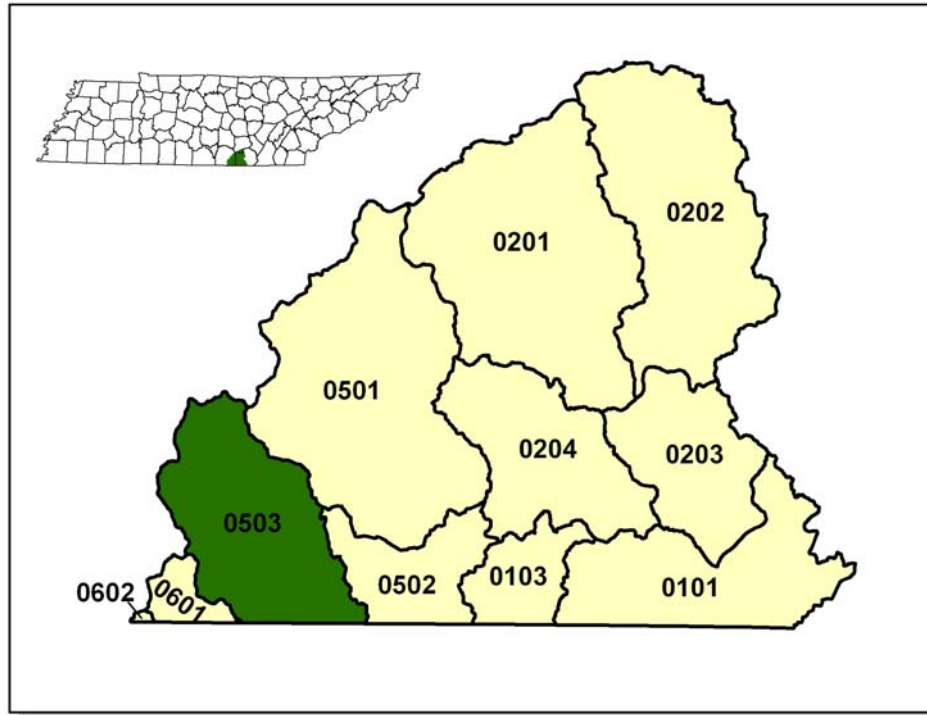


Figure 4-74. Location of Subwatershed 060300010503. All Guntersville Lake HUC-12 subwatershed boundaries in Tennessee are shown for reference.

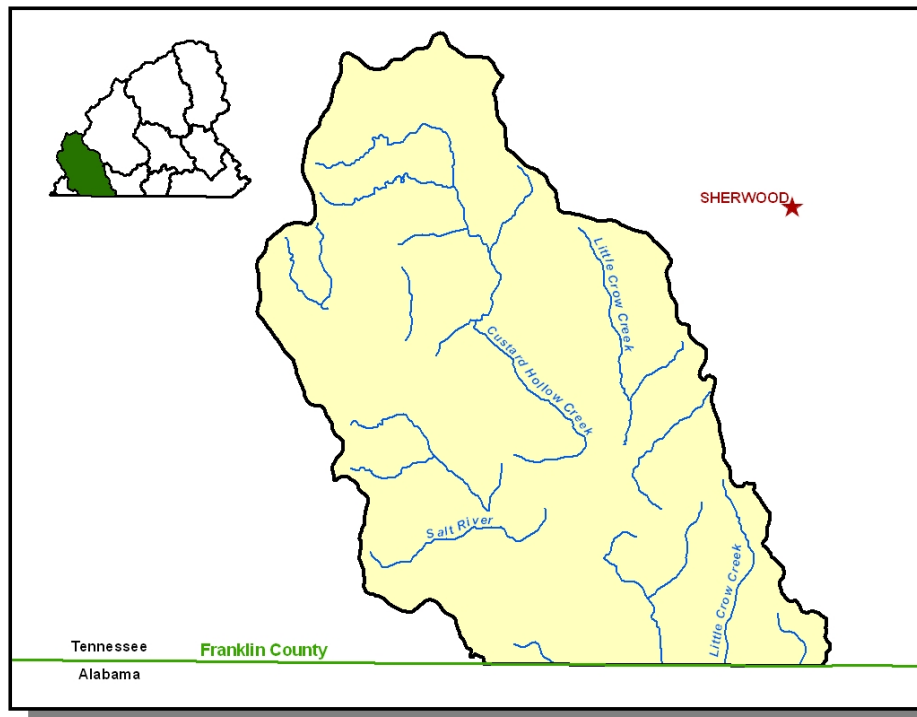


Figure 4-75. Locational Details of Subwatershed 060300010503.

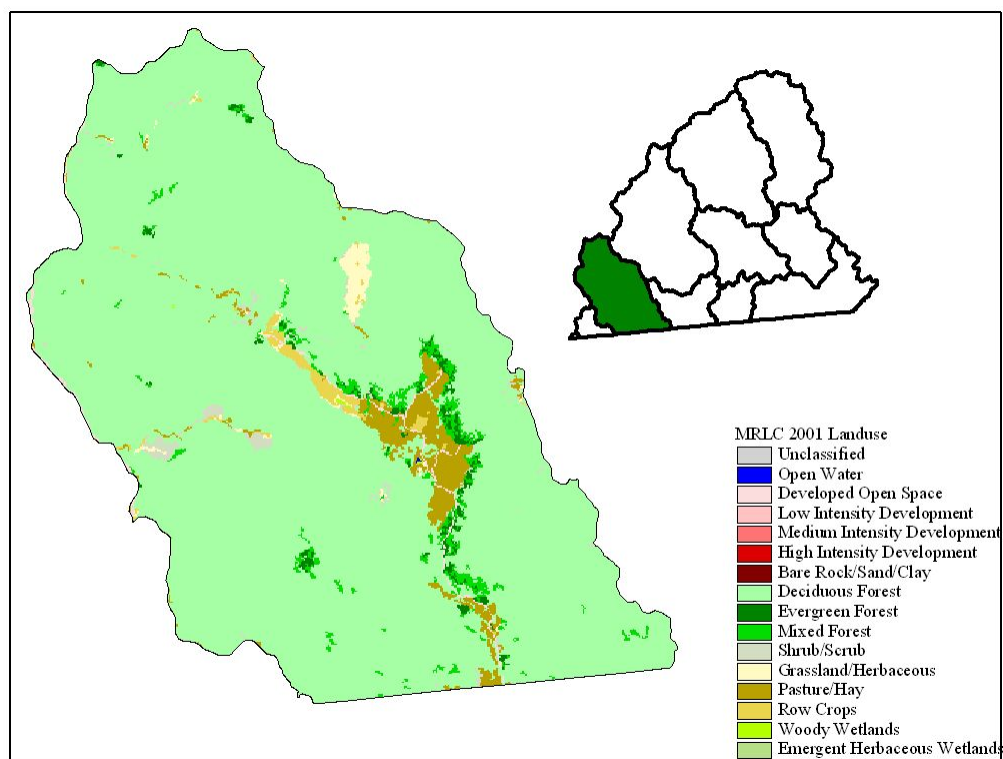


Figure 4-76. Illustration of Land Use Distribution in Subwatershed 060300010503.

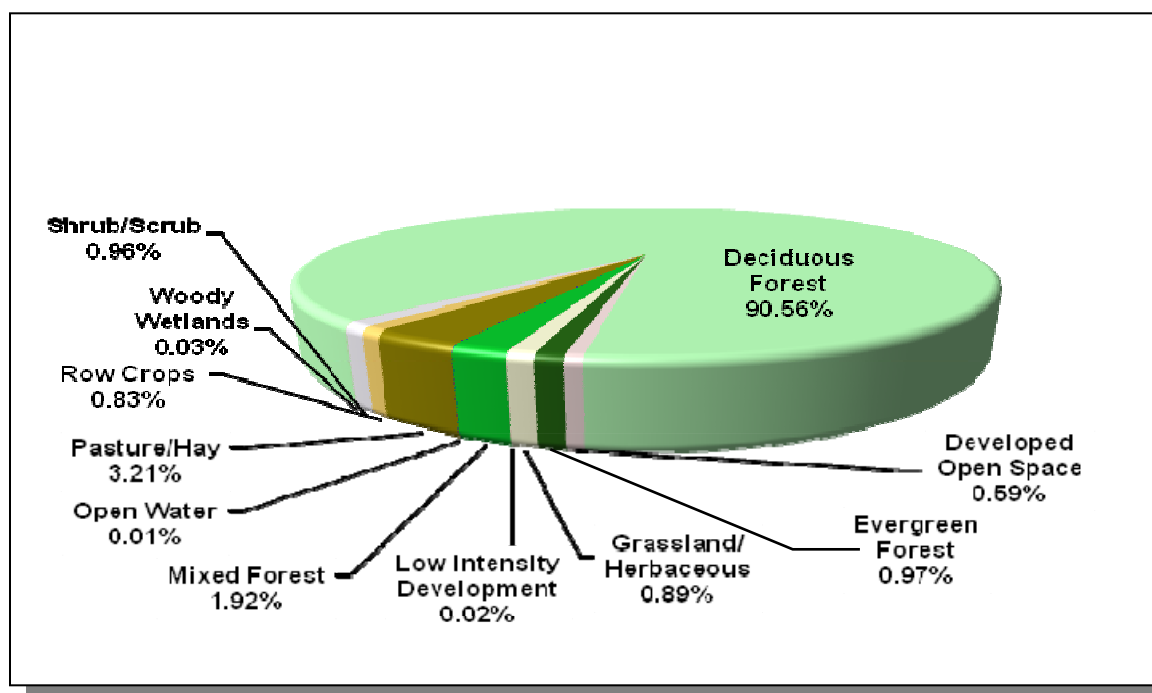


Figure 4-77. Land Use Distribution in Subwatershed 060300010503. More information is provided in Appendix IV.

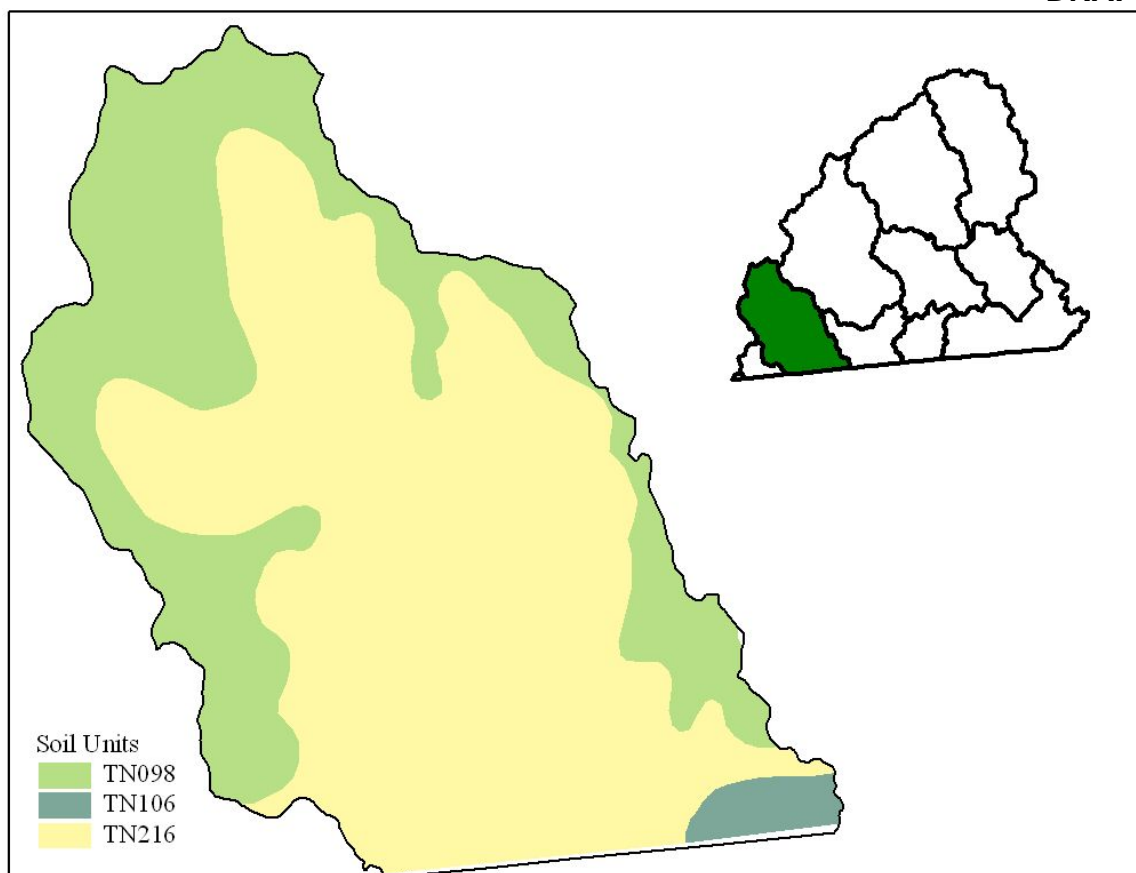


Figure 4-78. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060300010503.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN095	0.00	B	2.35	5.12	Loam	0.31
TN098	1.00	C	3.98	4.82	Loam	0.32
TN106	10.00	C	1.19	5.24	Loam	0.35
TN216	0.00	C	2.51	4.59	Loam	0.25

Table 4-44. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060300010503. The definition of "Hydrologic Group" is provided in Appendix IV.

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County	COUNTY POPULATION			% of County in Watershed	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Franklin	34,725	37,152	39,270	6.26	2,175	2,327	2,460	13.1

Table 4-45. Population Estimates in Subwatershed 060300010503.

4.2.I.ii. USGS Gaging Stations and STORET Sites.

There are no USGS continuous record gaging stations or STORET sites located in subwatershed 060300010503.

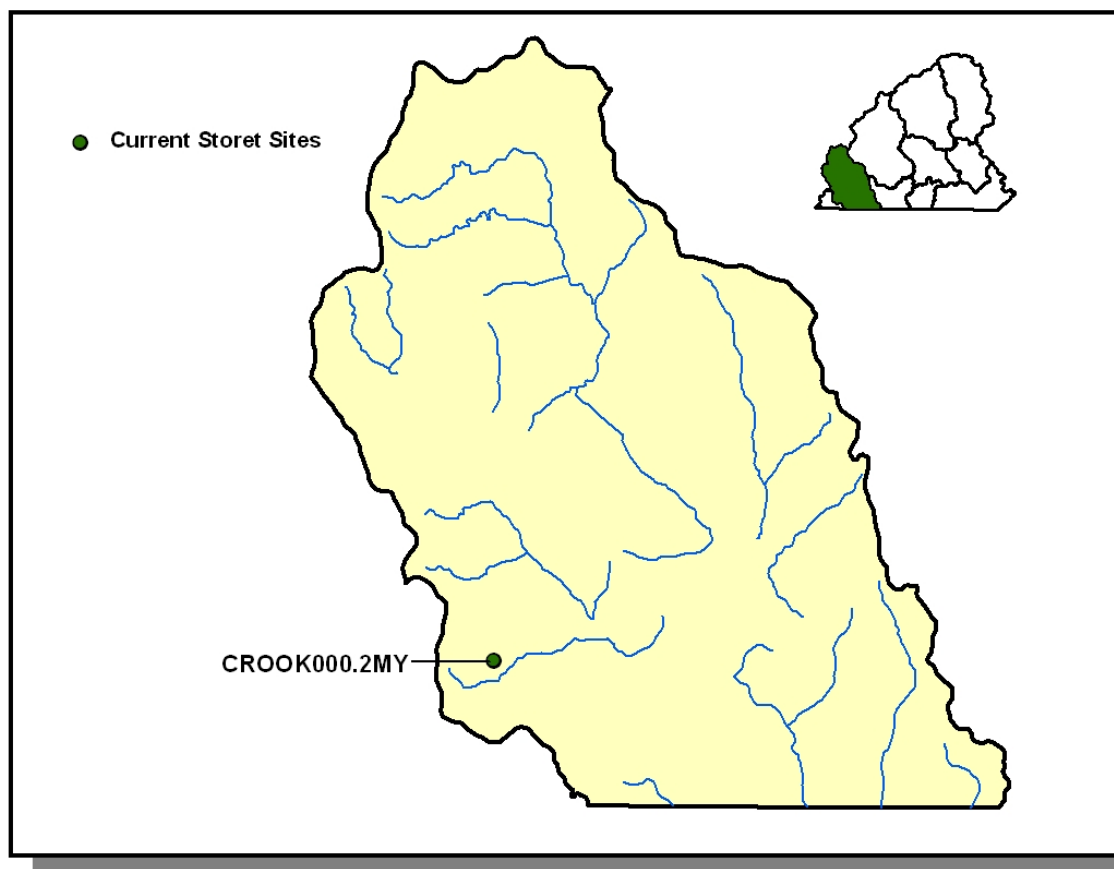


Figure 4-79. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 060300010503. More information, including site names and locations, is provided in Appendix IV.

4.2.I.iii. Permitted Activities.

There are no permitted activities located in subwatershed 060300010503 as of June 30th, 2007.

4.2.I.iv. Nonpoint Source Contributions.

LIVESTOCK COUNTS						
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
Franklin	13,877	30,702	2,999	28	19,333	105

Table 4-46. Summary of Livestock Count Estimates by County. According to the 1997 Census of Agriculture (<http://www.agcensus.usda.gov/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Franklin	183.4	183.0	6.0	28.7

Table 4-47. Forest Acreage and Annual Removal Rates (1987-1994) by County.

CROPS	TONS/ACRE/YEAR
All Other Close Grown Cropland	5.82
Corn (Row Crops)	5.57
Wheat (Close Grown Cropland)	5.55
Soybeans (Row Crops)	3.88
Other Cropland not Planted	2.04
Other (Horticultural)	1.92
Legume (Hayland)	1.64
Grass Forbs Legumes Mixed (Pastureland)	0.52
Grass (Pastureland)	0.32
Farmsteads and Ranch Headquarters	0.13
Conservation Reserve Program Land	0.09

Table 4-48. Annual Estimated Total Soil Loss in Subwatershed 060300010503.

4.2.J. 060300010601 (Little Coon Creek).

4.2.J.i. General Description.

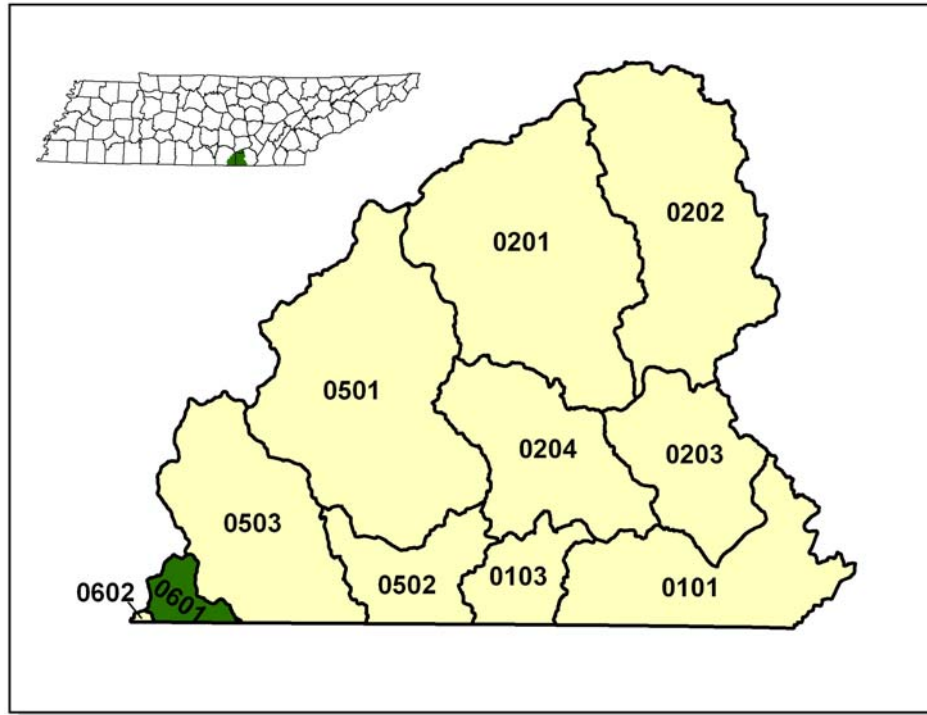


Figure 4-80. Location of Subwatershed 060300010601. All Guntersville Lake HUC-12 subwatershed boundaries in Tennessee are shown for reference.

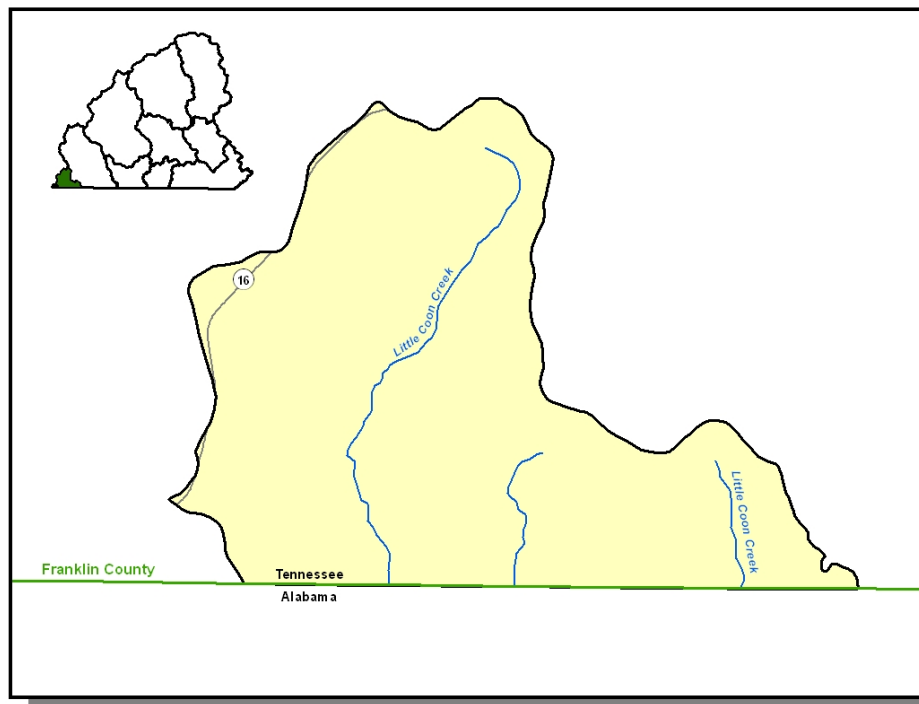


Figure 4-81. Locational Details of Subwatershed 060300010601.

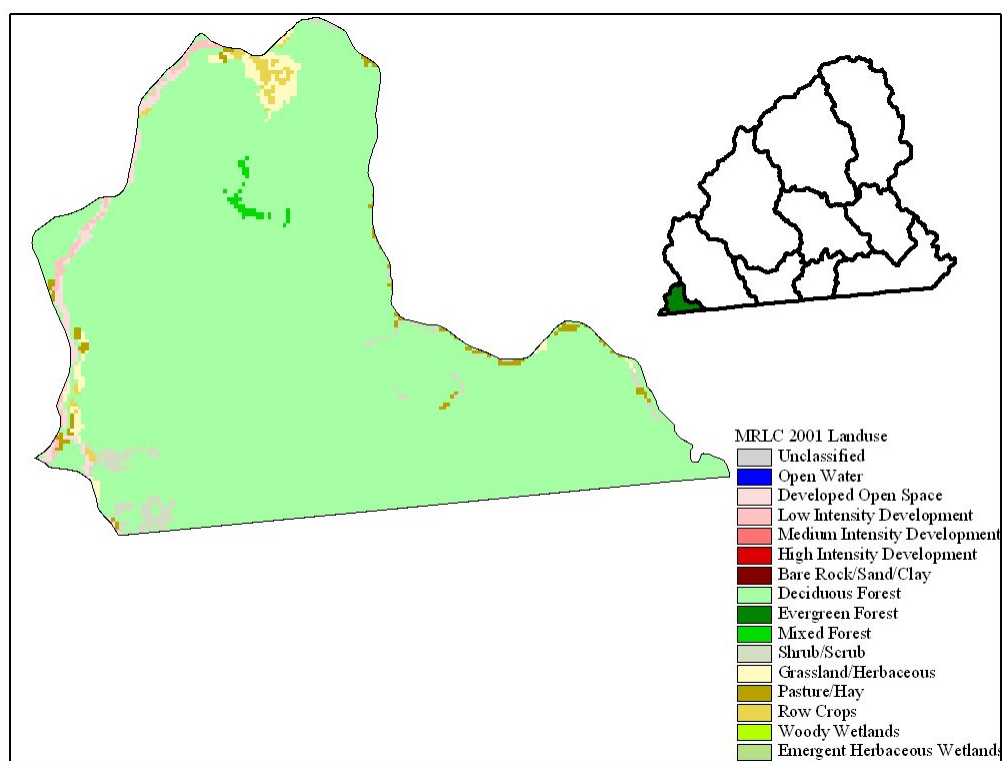


Figure 4-82. Illustration of Land Use Distribution in Subwatershed 060300010601.

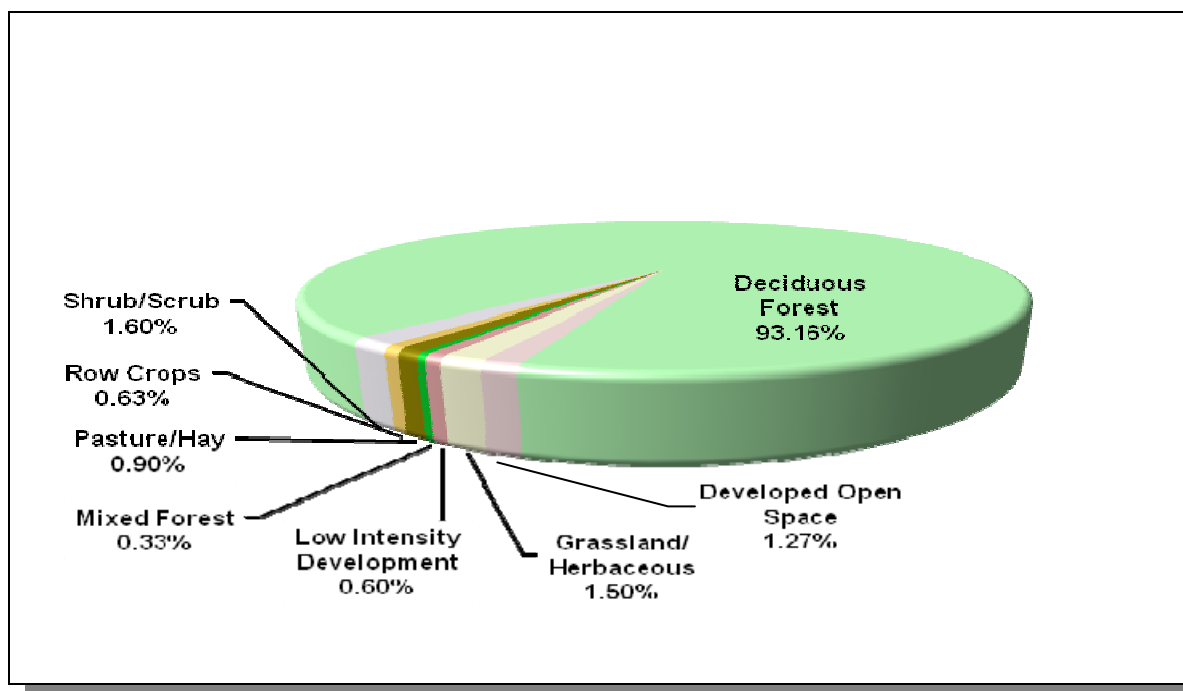


Figure 4-83. Land Use Distribution in Subwatershed 060300010601. More information is provided in Appendix IV.

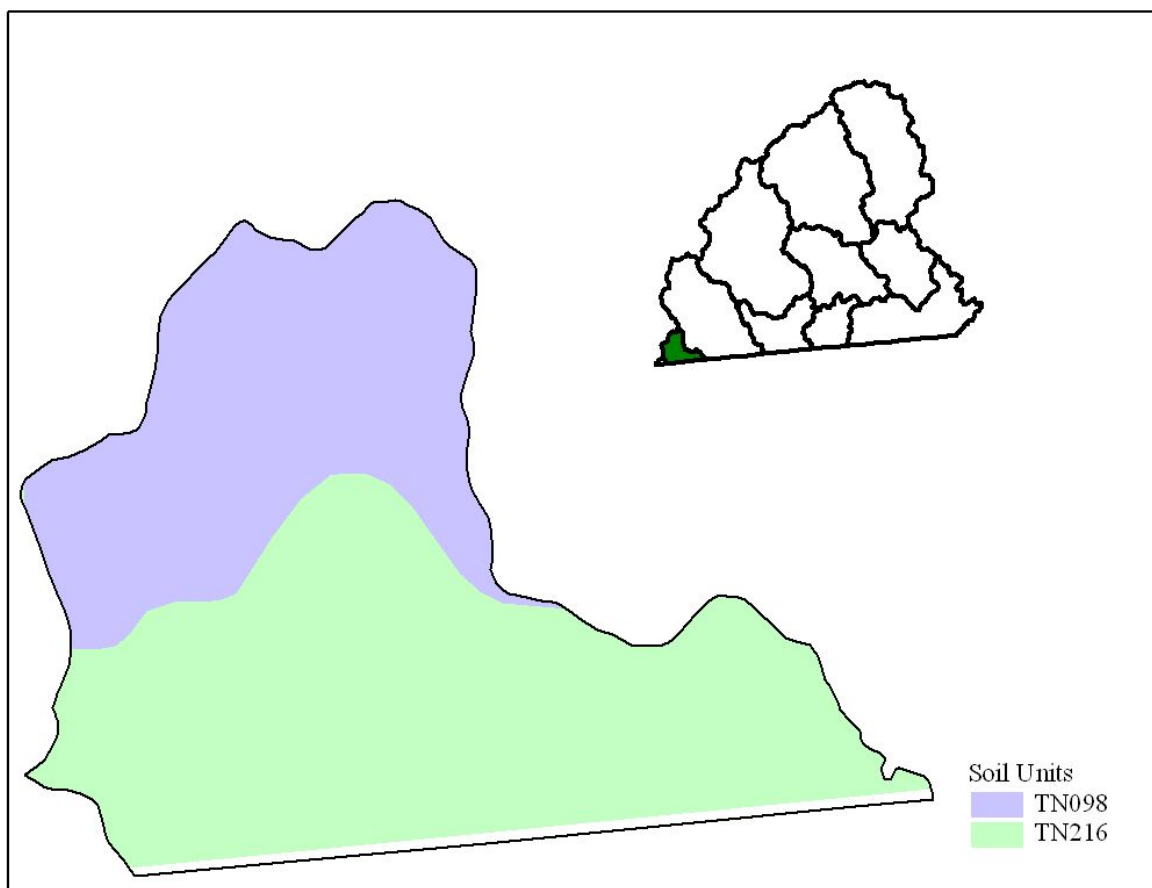


Figure 4-84. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060300010601.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN098	1.00	C	3.98	4.82	Loam	0.32
TN216	0.00	C	2.51	4.59	Loam	0.25

Table 4-49. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060300010601. The definition of "Hydrologic Group" is provided in Appendix IV.

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	COUNTY POPULATION				ESTIMATED POPULATION IN WATERSHED			
County	1990	1997	2000	% of County in Watershed	1990	1997	2000	% Change (1990-2000)
Franklin	34,725	37,152	39,270	0.65	227	243	257	13.20

Table 4-50. Population Estimates in Subwatershed 060300010601.

4.2.J.ii. USGS Gaging Stations and STORET Sites.

There are no USGS continuous record gaging stations or STORET sites located in subwatershed 060300010601.

4.2.J.iii. Permitted Activities.

There are no permitted activities located in subwatershed 060300010601 as of June 30th, 2007.

4.2.J.iv. Nonpoint Source Contributions.

LIVESTOCK COUNTS						
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
Franklin	13,877	30,702	2,999	28	19,333	105

Table 4-51. Summary of Livestock Count Estimates by County. According to the 1997 Census of Agriculture (<http://www.agcensus.usda.gov/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Franklin	183.4	183.0	6.0	28.7

Table 4-52. Forest Acreage and Annual Removal Rates (1987-1994) by County.

CROPS	TONS/ACRE/YEAR
All Other Close Grown Cropland	5.82
Corn (Row Crops)	5.57
Wheat (Close Grown Cropland)	5.55
Soybeans (Row Crops)	3.88
Other Cropland not Planted	2.04
Other (Horticultural)	1.92
Legume (Hayland)	1.64
Grass Forbs Legumes Mixed (Pastureland)	0.52
Grass (Pastureland)	0.32
Farmsteads and Ranch Headquarters	0.13
Conservation Reserve Program Land	0.09

Table 4-53. Annual Estimated Total Soil Loss in Subwatershed 060300010601.

4.2.K. 060300010602 (Big Coon Creek).

4.2.K.i. General Description.

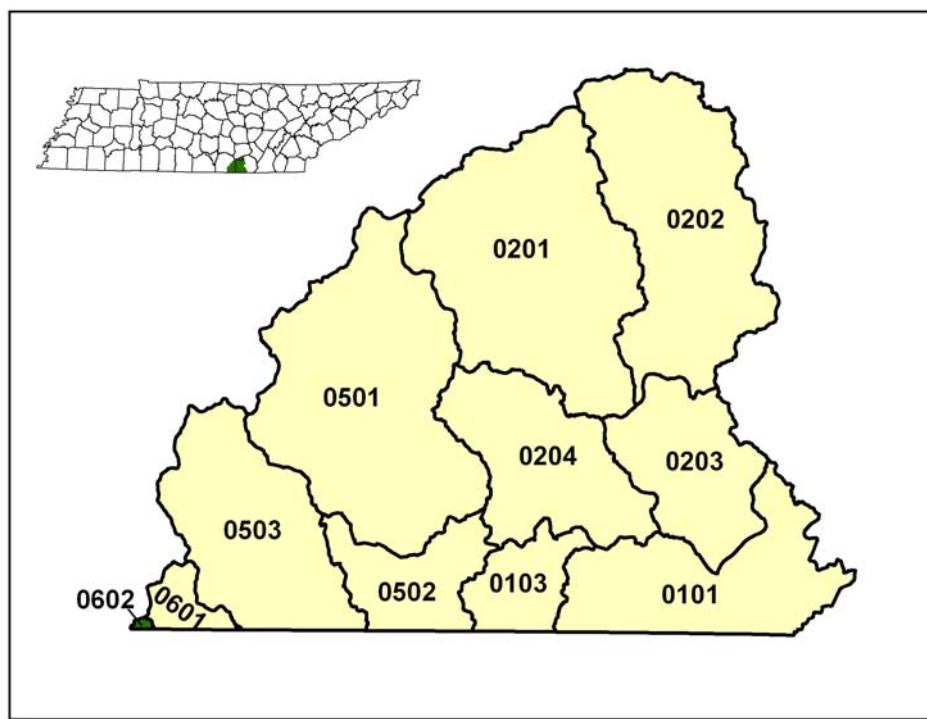


Figure 4-85. Location of Subwatershed 060300010602. All Guntersville Lake HUC-12 subwatershed boundaries in Tennessee are shown for reference.

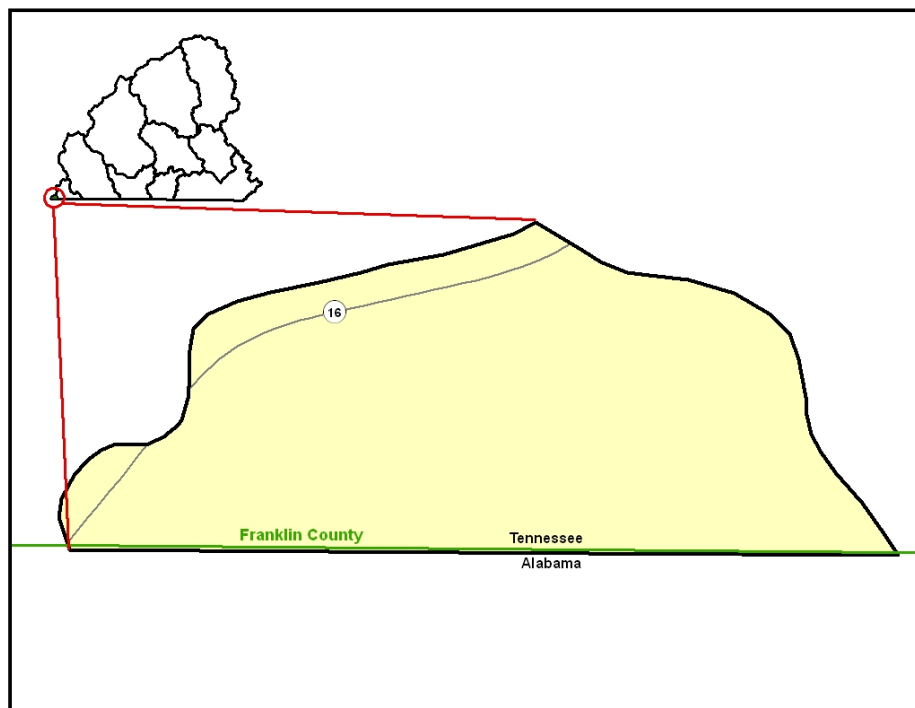


Figure 4-86. Locational Details of Subwatershed 060300010602.

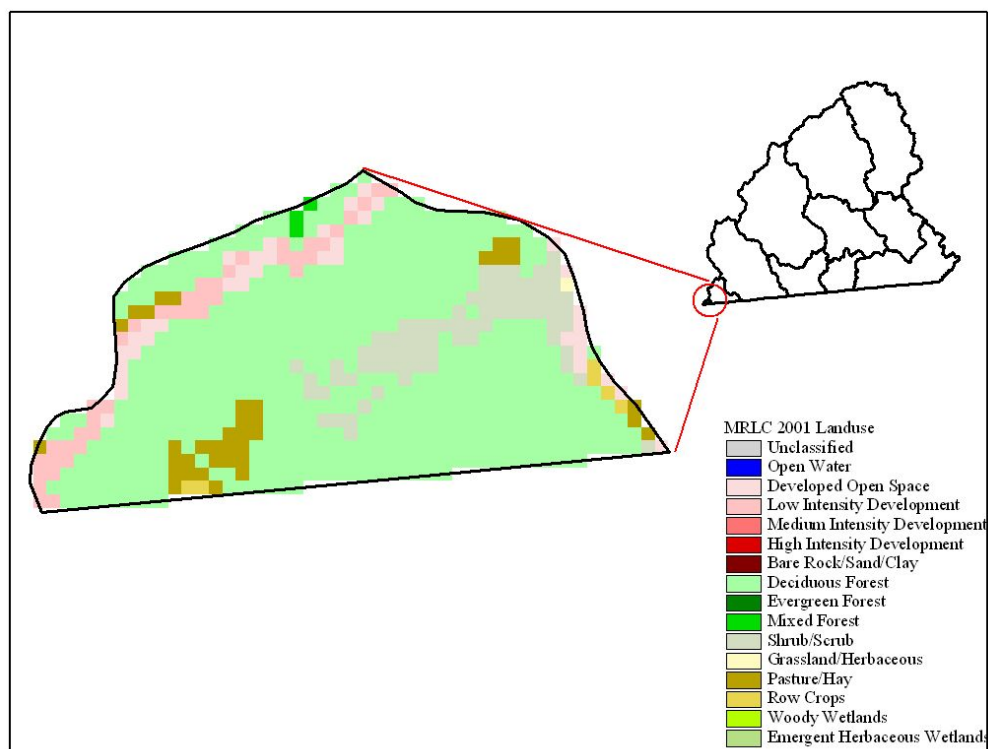


Figure 4-87. Illustration of Land Use Distribution in Subwatershed 060300010602.

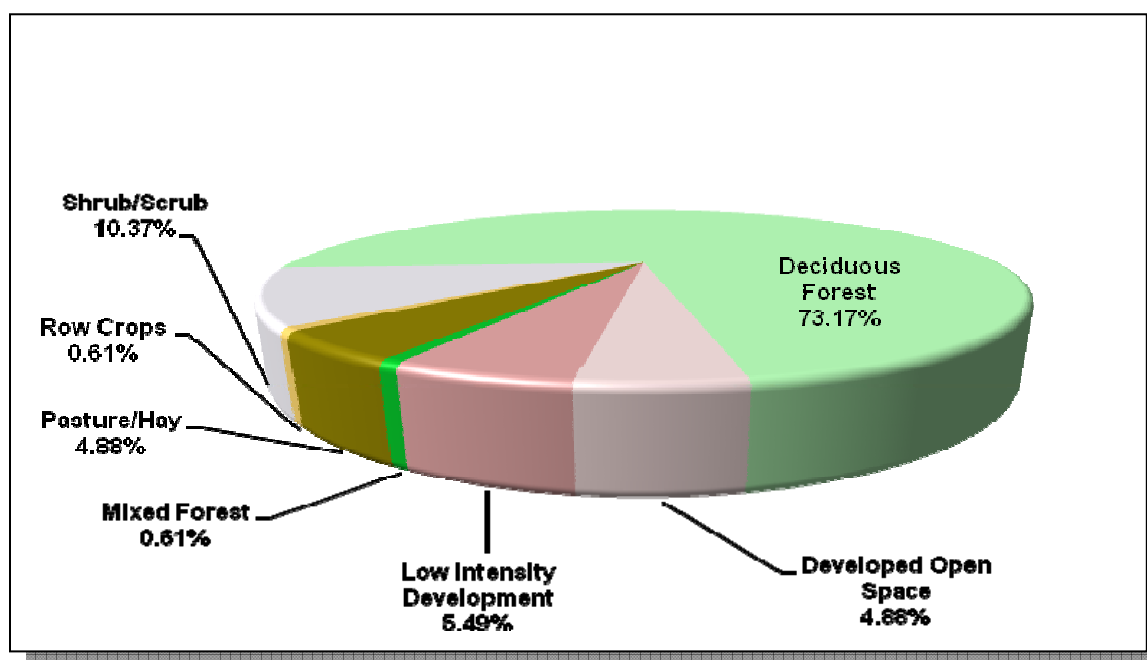


Figure 4-88. Land Use Distribution in Subwatershed 060300010602. More information is provided in Appendix IV.

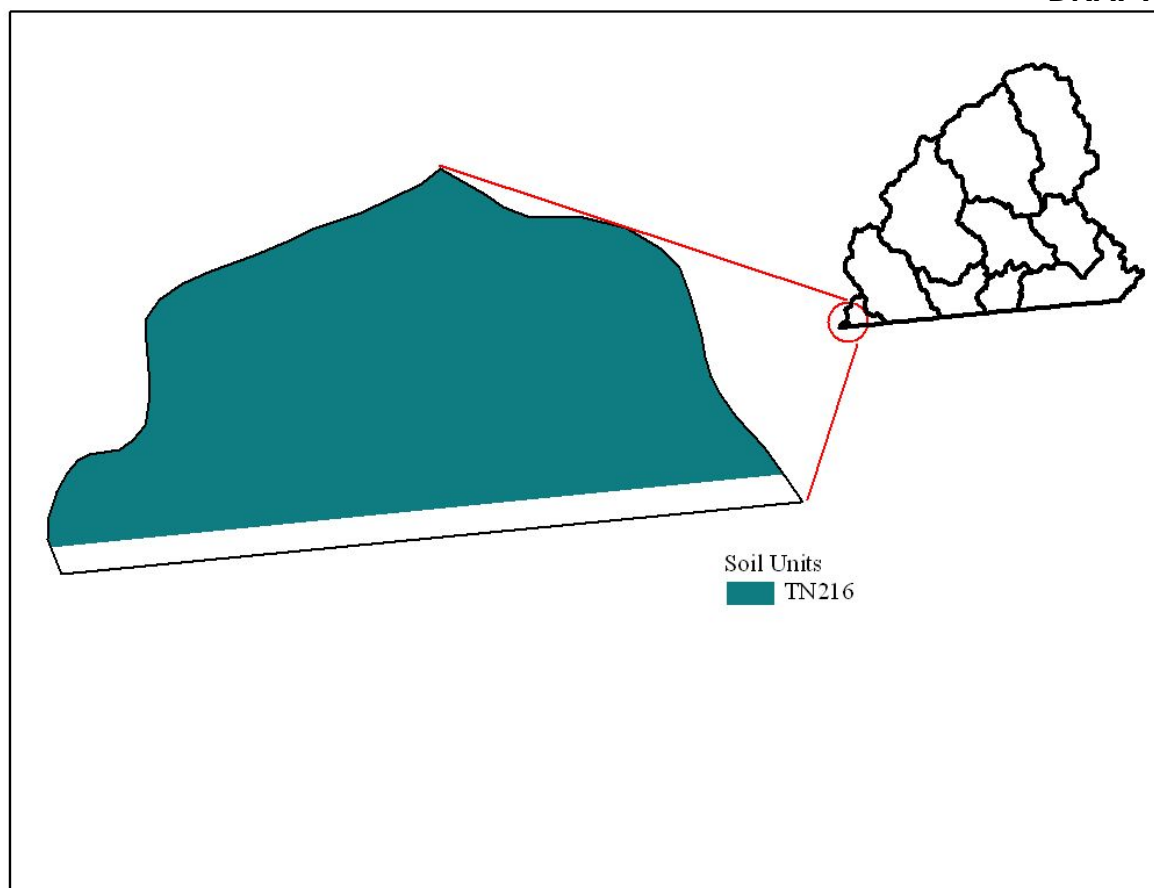


Figure 4-89. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060300010602.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN216	0.00	C	2.51	4.59	Loam	0.25

Table 4-54. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060300010602. The definition of "Hydrologic Group" is provided in Appendix IV.

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	COUNTY POPULATION				ESTIMATED POPULATION IN WATERSHED			
County	1990	1997	2000	% of County in Watershed	1990	1997	2000	% Change (1990-2000)
Franklin	34,725	37,152	39,270	<1	<25	<25	<25	0.0

Table 4-55. Population Estimates in Subwatershed 060300010602.

4.2.K.ii. USGS Gaging Stations and STORET Sites.

There are no USGS continuous record gaging stations or STORET sites located in subwatershed 060300010602.

4.2.K.iii. Permitted Activities.

There are no permitted activities located in subwatershed 060300010602 as of June 30th, 2007.

4.2.K.iv. Nonpoint Source Contributions.

LIVESTOCK COUNTS						
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
Franklin	13,877	30,702	2,999	28	19,333	105

Table 4-56. Summary of Livestock Count Estimates by County. According to the 1997 Census of Agriculture (<http://www.agcensus.usda.gov/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Franklin	183.4	183	6	28.7

Table 4-57. Forest Acreage and Annual Removal Rates (1987-1994) by County.

CROPS	TONS/ACRE/YEAR
All Other Close Grown Cropland	5.82
Corn (Row Crops)	5.57
Wheat (Close Grown Cropland)	5.55
Soybeans (Row Crops)	3.88
Other Cropland not Planted	2.04
Other (Horticultural)	1.92
Legume (Hayland)	1.64
Grass Forbs Legumes Mixed (Pastureland)	0.52
Grass (Pastureland)	0.32
Farmsteads and Ranch Headquarters	0.13
Conservation Reserve Program Land	0.09

Table 4-58. Annual Estimated Total Soil Loss in Subwatershed 060300010602.